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THE AMERICAN ELEVATOR AND GRAIN TRADE.

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A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY
MITCHELL BROS. COMPANY, {
(INCORPORATED.)

Vol. IX.

CHICAGO, ILLINOIS, JANUARY 15, 1891.

No. 7.

SUBSCRIPTION PRICE,
ONE DOLLAR PER ANNUM.

If you own or operate an elevator there is something on page 170 that will prove of interest and advantage to you.

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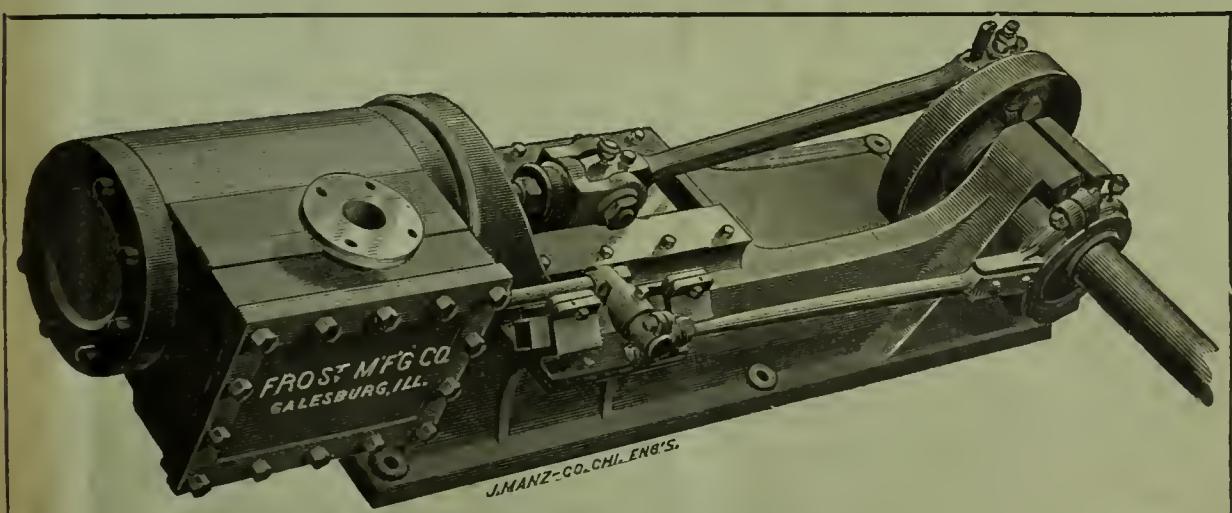
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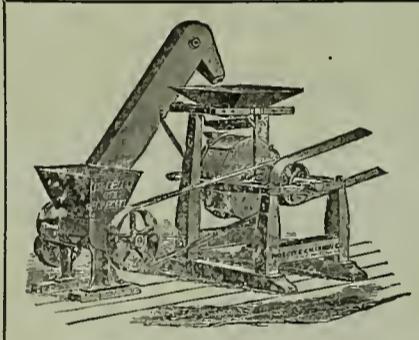
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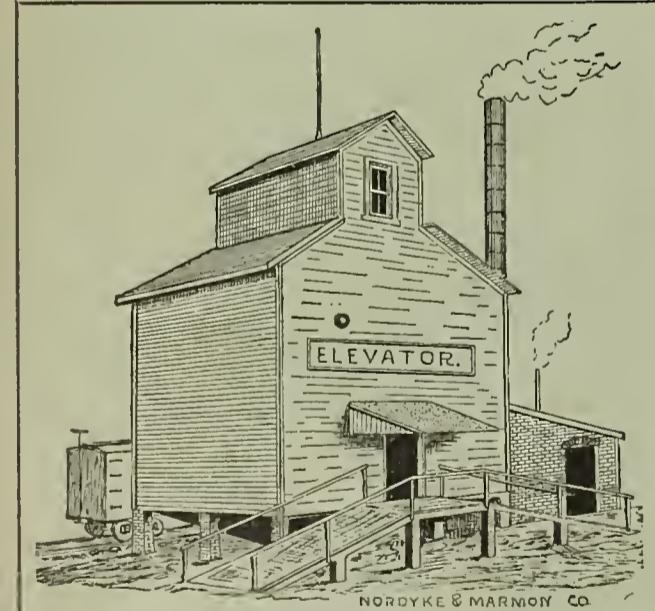


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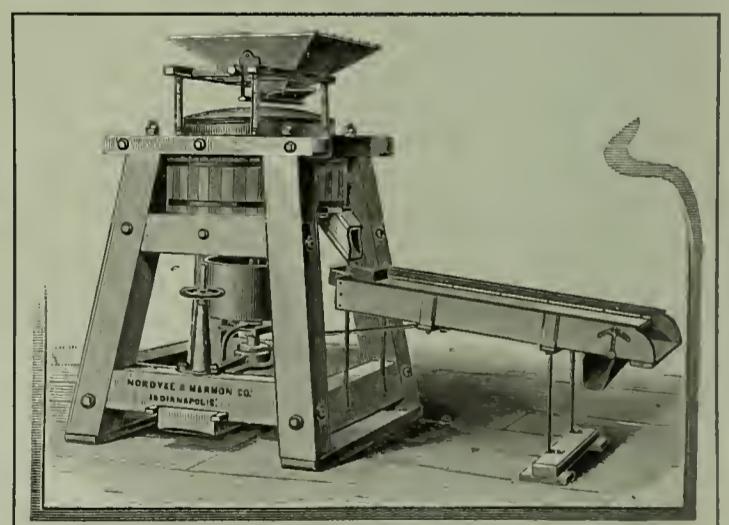
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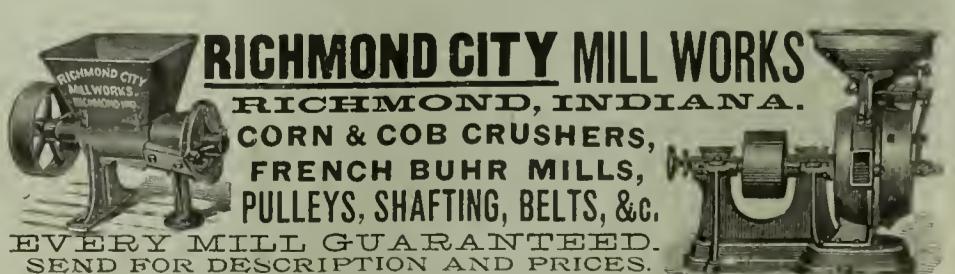
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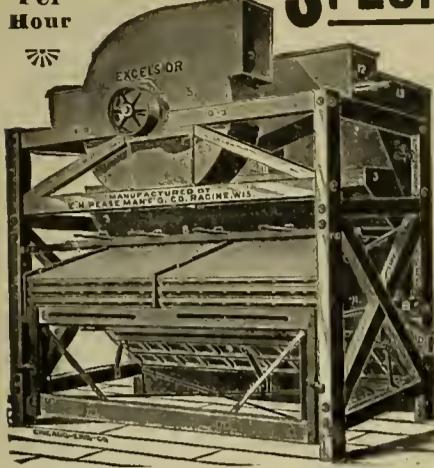
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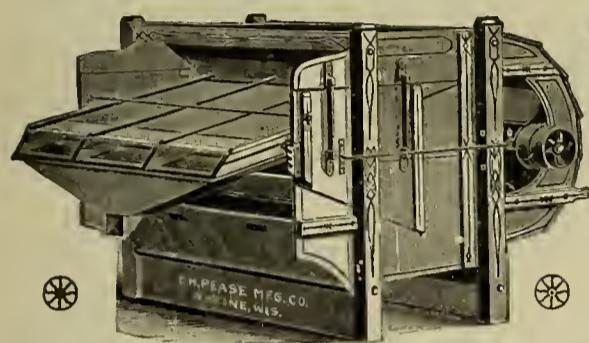
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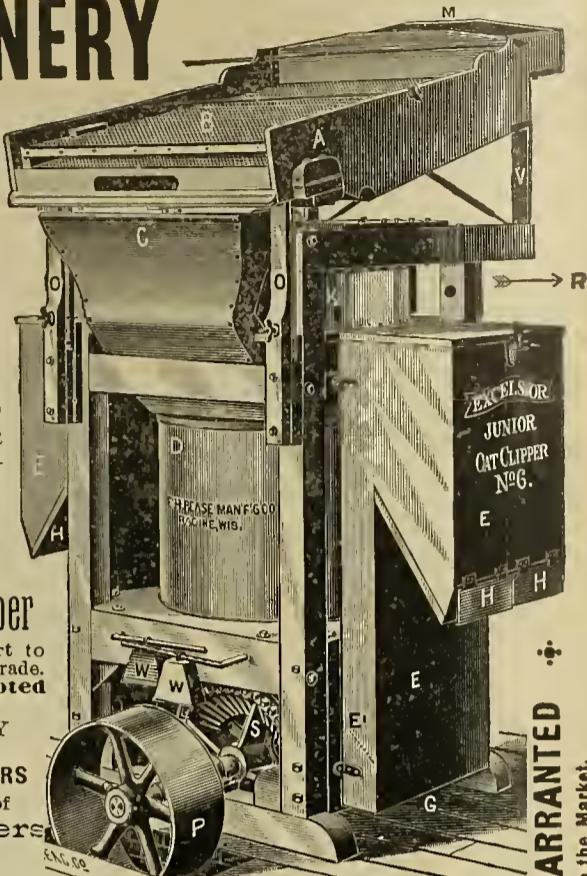
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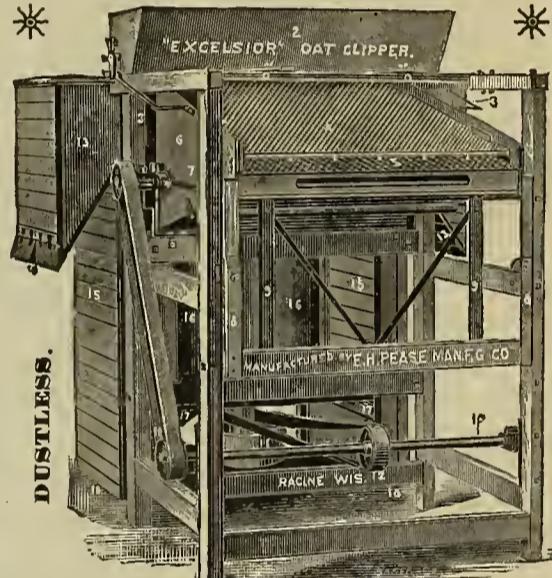
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SENECA, ILL., May 8, 1890.

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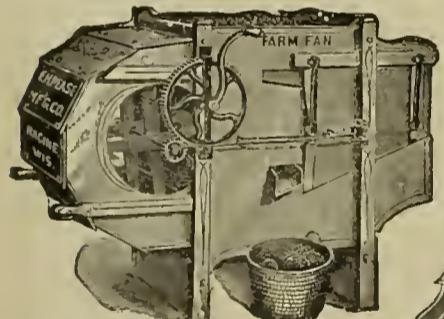
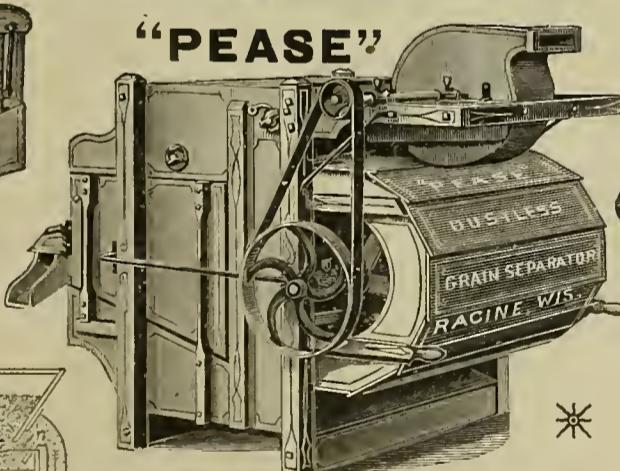
GENTLEMEN: In December, 1888, we bought one of your No. 8 "Excelsior" Combined Oat Clippers, Separators and Graders, and have clipped at least 250,000 bu. of oats with it without a cent of cost for repairs, and consider it one of the most valuable pieces of machinery in our elevator. Before buying, we examined other clippers in operation, but could find none we thought compared with the **Excelsior** in capacity or work. We have no trouble to raise the weight of oats anywhere from 3 to 10 lbs. per bu., and can change the grade while machine runs at full speed by moving the governing weights upon the regulating levers. A few days ago we went to see a —— clipper work and judging from the work it was doing it is a total failure as an *oat clipper*.

We would not exchange our **Excelsior** Clipper for a 10-acre lot of —— clippers. We have yet to see a machine that will come up to your **No. 8 Excelsior** in quality or capacity. Our machine has done better than you claimed for it and paid for itself long ago.

We tested our clipper a few days ago by clipping 3,500 bu. of oats by actual weight, with less than 1-2 lb. waste per bu. We also shipped two cars of oats from same bin to same commission merchant in Chicago, viz.: One car clipped and one car not clipped, we got 1 1-2 cents per bu. more for the clipped than the unclipped oats (1-2 cent per bu. covers cost of clipping and waste) * * * * * etc.

Yours truly,

HOGAN & NEILSON.

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"Pease" Farm Fanning Mills.

DUSTLESS SEPARATORS.

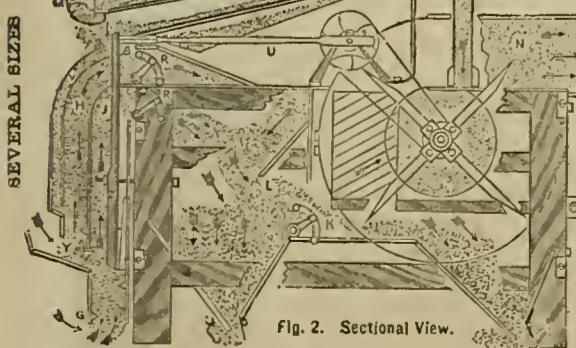
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Oat Clippers,
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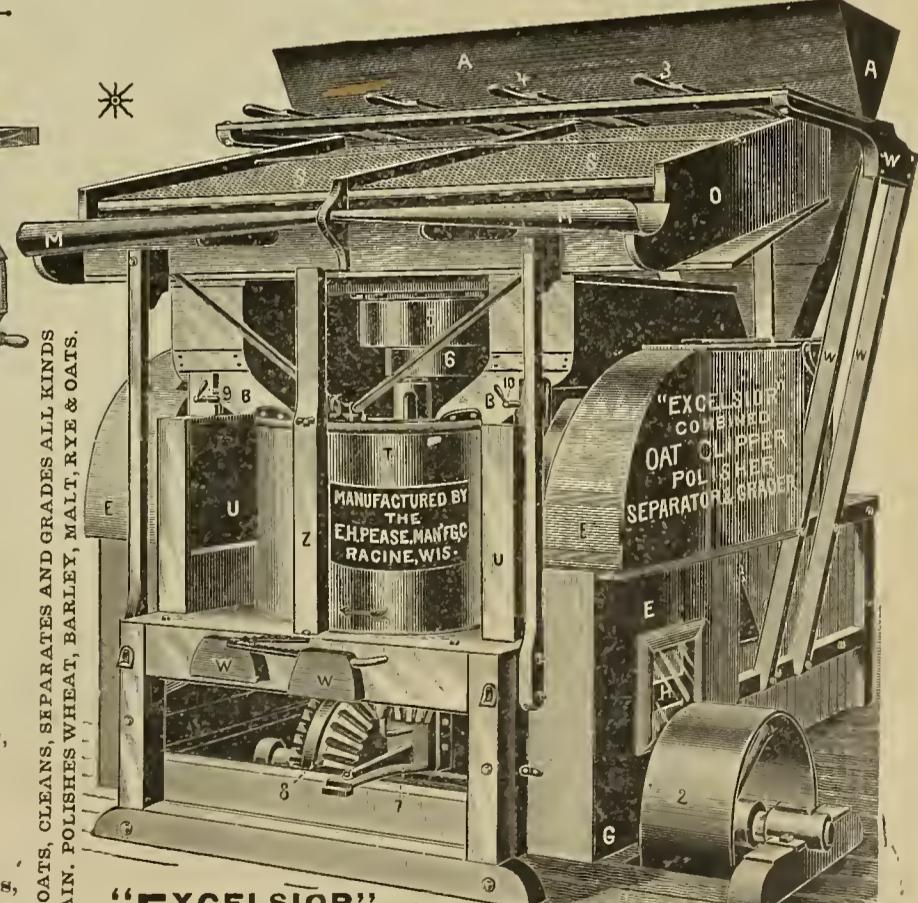
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Grain Graders, Cleaners
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SEVERAL SIZES



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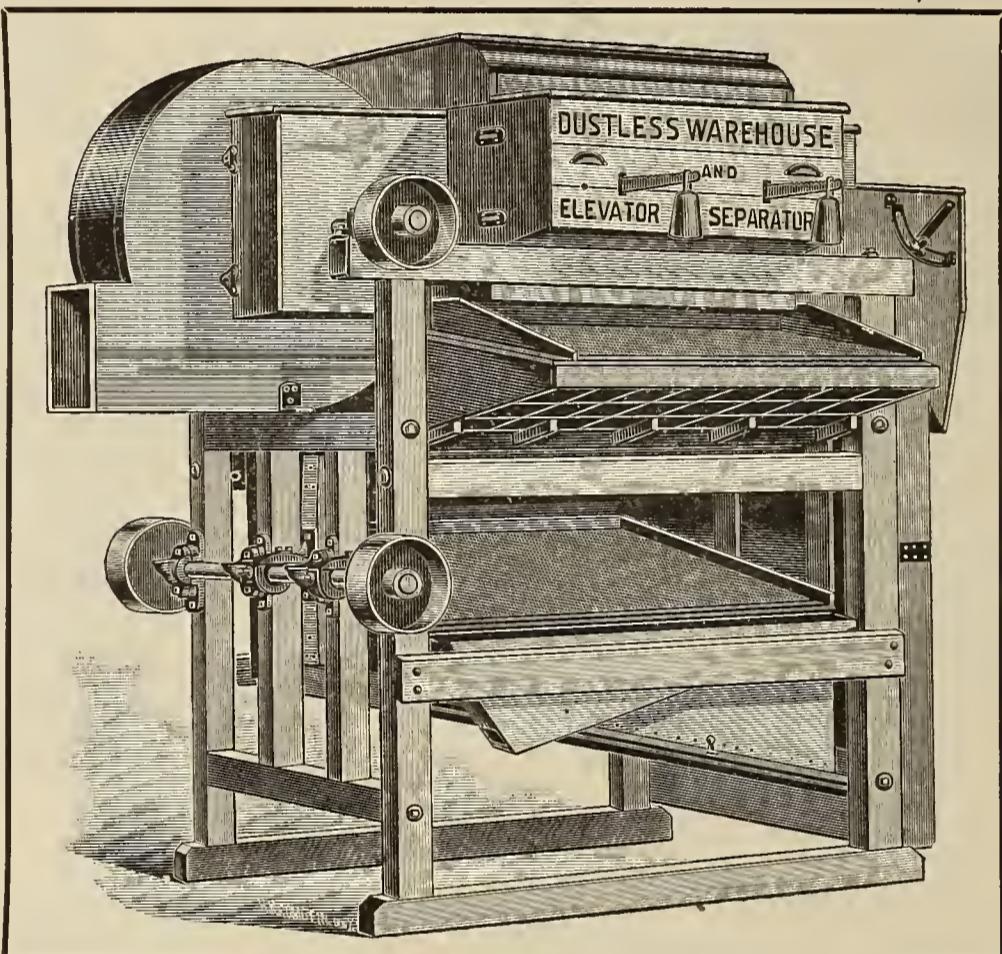
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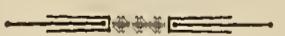
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IS THE "EUREKA."



If you have the slightest doubt of the truth of this assertion, write and we will remove that doubt.

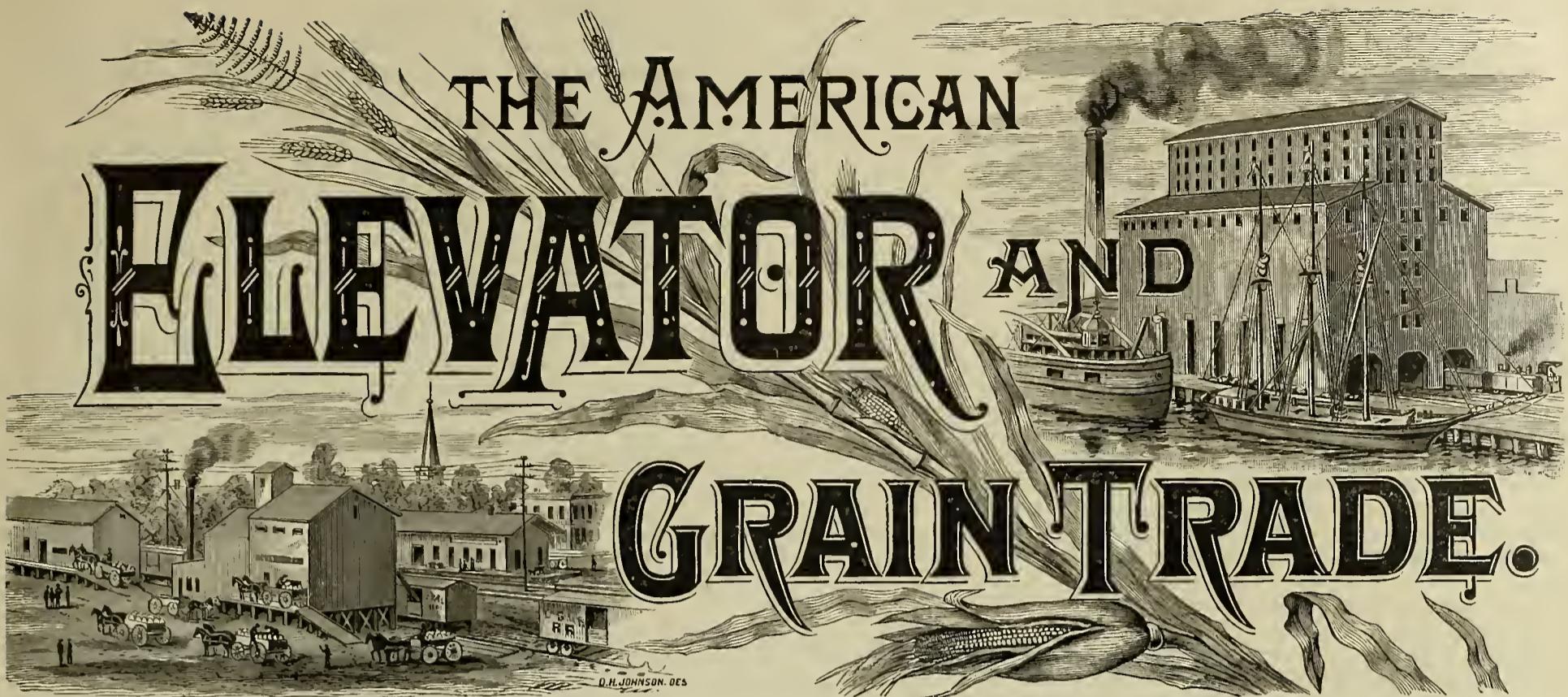


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A DROP IN WHEAT.

"We occasionally read of wheat taking a drop," said a spectator in the visitors' gallery at the Board of Trade building a few days ago, "But I once saw a crash in grain such as has seldom if ever been equaled. It occurred where a loosely constructed bridge spanned a very small stream or ditch at a point some miles west of Chicago, which at the time the incident happened was only a modest little city which no one dreamed would ever become the Chicago of to-day. It was before the great railroad lines were reaching out into the great West and the farmers of the state marketed their grain by teams and wagons. The crash I speak of happened in the fall of the year, when the farmers for miles around were bringing their grain to the city. At such times it was no unusual sight to see scores of loaded wagons closely following each other being driven to market by the sturdy farmers of the state. On the particular day I speak of, when the incident occurred, about fifty loaded wagons were moving leisurely along toward the city, their owners, no doubt, dreaming of the purchases that would be made from the proceeds of the sales. All at once the scene wore a different aspect. Some men driving a team hitched to an empty wagon came up behind the procession and turned out at the side of the road to drive past the loaded wagons. As they did so some one gave the signal to close up the line, and for the leading team to beat the empty wagon to the little bridge, not far distant, and the others keeping closely up to each other so that it could not get in between, would compel it to go over the bridge last instead of first, as it intended. It was all intended and taken in the good-humored and practical joke-loving spirit always so manifest among the farmers of those early times. It was a lively scene that ensued, the fifty loaded wagons racing against the one empty one. The men in the empty wagon realized that unless they crossed the bridge first they would be forced to cross behind all the others. They crossed first and their wagon, in going over the bridge, dislocated the loose planks. The front end of the first loaded wagon went into the ditch

and came to a sudden halt; the tongue of the second wagon went through the end gate of the first wagon and so on and on to the end of the line. The damage was all wrought in an instant. Such a crashing of end gates and shaking up of grain sacks. But it was lots of fun."



NEW EXCHANGE ELEVATOR AT BUFFALO.

And the old-timer laughed heartily as he recalled the occurrence.

loaded wagons racing against the one empty one. The men in the empty wagon realized that unless they crossed the bridge first they would be forced to cross behind all the others. They crossed first and their wagon, in going over the bridge, dislocated the loose planks. The front end of the first loaded wagon went into the ditch

A grain buyer from LaCrosse, Rush county, Kan., says the wheat in that section is about ruined by the dry weather. No rain has fallen since the wheat was planted.

NEW EXCHANGE ELEVATOR AT BUFFALO.

In addition to transfer towers and floaters for handling grain, Buffalo, N. Y., has more than thirty-five grain elevators, a number exceeded by Chicago alone. New elevators are continually being built at Buffalo and probably will be for some years to come. Some of those now standing are very old and others have a capacity for only a small amount of grain.

Through the kindness of the publishers of the *Buffalo Illustrated Express* we give herewith a cut of the new Exchange Elevator, which was recently completed on the site of the old (Phoenix) Exchange Elevator, which was burned on the morning of Dec. 15, 1889. About three months after the burning of the old Exchange Elevator the Exchange Elevator Company was formed for the purpose of rebuilding. The new Exchange Elevator was commenced about the first of May and on Sept. 15 it was started to unloading grain from cars, and was soon filled with Canadian barley, which was rushed into the United States to avoid the increased duty. The elevator has a storage capacity of 500,000 bushels. On Oct. 20 the elevator was ready to receive grain from vessels.

The elevator was built by R. Dunbar & Son, contractors of Buffalo. Edward Brown was superintendent of construction. The elevator is first-class in every particular. It is connected with nearly all railroads entering the city. The proprietors are expending a large amount of money in blasting rock and dredging and will soon have a sufficient depth of water so that any vessel arriving at Buffalo can unload at the elevator.

The *Toledo Market Report* recently described the condition of the market as follows: The grain markets East and

West are decidedly unwell. The friends of wheat and corn are asleep, or have gone on a journey. The cities of the helpless do not reach them. Their enemies have made a signal triumph to day, and May wheat at Chicago is way below 100 cents. There is no bracing news. English markets for wheat are nearly steady, but dull.

M'DOUGAL'S "WHALE BACKS."

Captain Alex. McDougal of Duluth, Minn., is no longer looked upon as a crank, but as a great inventor, and his invention, the steel freight barge, promises to bring about a great change in the lake carrying trade. The "whale back" is no longer an experiment, but is a pronounced success, and undoubtedly will cause a great reduction in freight rates, especially in grain freight rates. Mr. McDougal worked upon the whale backs for a number of years. In 1886 he began to see some possibilities of making a practical test of his invention, and in 1888 the first keel was laid for what in practical lake sailor parlance has become known as the "whale backs." It may sound like a day dream to assert, but nevertheless practical experience on the largest possible commercial scale is demonstrating that these curious "whale backs" are not only destined, but are actually inaugurating a radical change in the commerce of the lakes. The steel "whale back" embodies the very latest scientific inventions applied to maritime construction. "Captain McDougal's steel barges" was the original name of these vessels, and, as the name indicates, it was probably the sole intention of the inventor originally to make them the consorts of the regular lake steamers which were to have them in tow from port to port, loaded with the heavier shipments of lake trade, such as grain, coal, iron ore and stone.

The first experiments were made in the summer of 1887 and proved remarkably successful. The "whale back" as a consort did not only prove acceptable, but so valuable as to turn the former scoffers into the most enthusiastic admirers. If one can imagine a huge cigar, expanded in the center, and instead of one, two pointed ends, one will have the shape of the "whale back" reasonably accurate in one's mind. In the interior of this cigar shaped vessel there exists a carrying capacity of from 1,500 to 3,000 tons. When loaded, like the original Monitor, there is apparently only a very few feet above the water. A circular constructed cabin contains from two to three men, while on the new one, the steamer, of which we herewith give an illustration, there are some five. She carries no sails, no masts, and if she possessed the capacity for sending up a column of water in front of her she might well, when loaded, be taken for a duplicate of a mighty Greenland whale.

The manner in which these remarkable lake crafts outlive the heavy seas is something new, both to amateur spectators and veteran sailors; the graceful glide of a duck or a swan is about the only comparison that can be made to the manner in which these "whale backs" pass through the water.

A steamer from Cleveland arriving at Duluth had one of the barges in tow, and had averaged as high as twelve miles, with her own cargo of coal and a still heavier one aboard the barge. So far as regards their usefulness as towing consorts.

Last spring the Colgate Hoyt, or, as known to the company that owns her, No. 102, was launched at Duluth, the first one having her own independent steam power. The manner in which this experiment has vindicated itself is as interesting as anything in the modern history of navigation. Drawing fifteen feet of water and with a carrying capacity of 3,000 tons and employing one-half dozen men, she was kept going continuously the entire season, making the best schedule time on the lakes of any vessel whatever, running frequently as high as eighteen miles an hour; when other vessels have been compelled to lay in for heavy weather she invariably pursued the even tenor of her way, as though the heaviest northeaster of Lake Superior or Lake Huron was made especially for her benefit. This revolution in lake commerce will make rates still lower and will largely increase an already remarkable traffic on Lake Superior and the lower lake system.

The world at large little realizes what far-reaching changes these craft are about to inaugurate on the lakes. The length of these barges is about equivalent to an ordinary good sized lake schooner, but instead of timber and wood, generally used, steel ribs and steel plates of the highest tempered grade only are used in their construction.

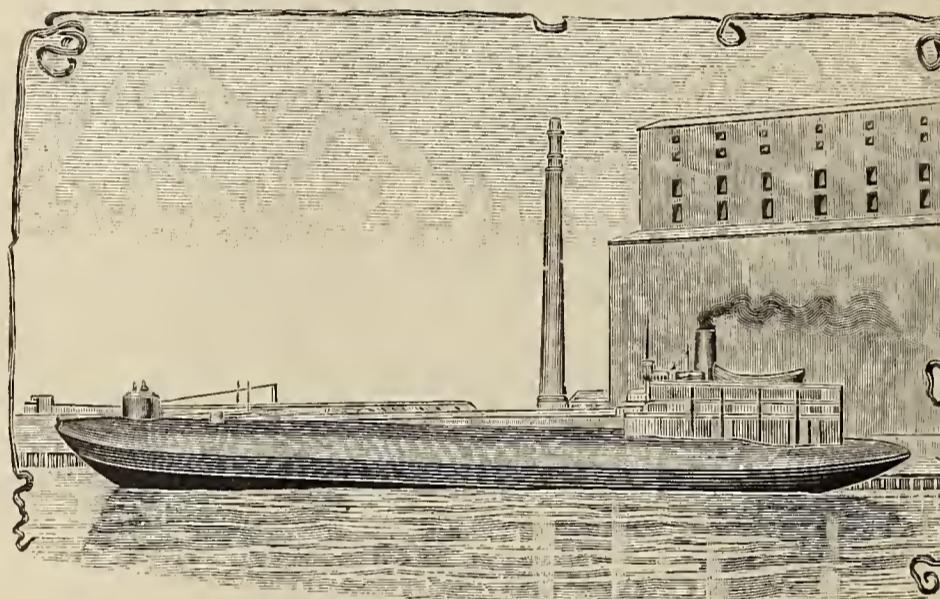
The coolest and most sagacious men identified with northwestern commerce stand behind this barge construc-

tion. The singular success of the great steamboat fleet built by J. J. Hill, president of the Great Northern Company, immediately tempted the managers of the Northern Pacific to duplicate the same. When, suddenly, this wonderful invention came in sight Mr. Villard said to his associates: "Let us wait until these crafts are a demonstrated success." It required but a few brief months to do that, and to-day John Rockefeller of the Standard Oil Company, and the Northern Pacific Railroad Company are among the principal stockholders in the McDougal Steam Barge Company.

There are at present five barges under construction, one of which is a steam barge to cost \$175,000. The remaining four are destined to become consorts, while the keels of five new ones will be laid as rapidly as the facilities of the few yards will admit of the same. Four hundred men are at present employed in the West Superior yards, which force will be increased to 1,200 as rapidly as it is possible to employ that force.

Another yard is established in New Jersey, and a large number of barges are to be built for the carrying coal trade between Pennsylvania and New England; a third one is to be inaugurated in Mobile, Ala. The purpose of the barges to be built there is to carry iron ore from the Island of Cuba, where an acreage of 3,000 has been bought by an Alabama and New York company, the purpose being to supplement the deficiency in Alabama ore for certain purposes with the chemical ingredients which the Cuban ore is known to possess in great abundance.

The fourth yard is in process of being established on



A STEAM "WHALE BACK."

Puget Sound where, on the immense inland waters of that region, they will admirably fulfill the same purpose for which they have proved themselves so successfully fitted on Lake Superior.

Captain McDougal, the great inventor, is Scotch-Irish by birth, but has been on the lakes since a child. It has taken him twenty years to realize what was once both his night and his day dreams, but at last they are afloat, and nothing more substantial was ever dreamed of. They average 280 feet in length, with a width of 38 feet, of solid steel, and they are at once the most fantastic and the most practicable of modern commercial carriers on either land or water. Each represents about \$100,000 investment, while those which are being fitted out with independent steam power stand for an additional investment of about \$50,000.

BROOM CORN IN ILLINOIS.

The Eastern Illinois correspondent of *Country Gentleman* says: The principal crop hereabouts is broom corn; Douglas and three or four adjoining counties raise a large proportion of the total crop of the Western states. The remainder Kansas supplies. Hardly a poor yield was reported from any point in the district; in fact, a yield of less than 800 to 1,000 pounds per acre would have been considered merely moderate, whereas, other seasons the latter amount would be thought only attainable with the most careful cultivation. At \$80 per ton it will be seen that there is a better return from the land than is usual with the general farm crops. The cost of raising the brush varies, of course, according to the quantity of work connected with it that the grower has to hire done. From my own experience I should say that \$40 profit may be expected from a ton of this year's crop if sold for \$80, which is the price for the best grades at the present time.

NEWPORT NEWS ADVANCING.

The rumors that several Baltimore exporters of grain would transfer their operations to Newport News, Va., or establish branch houses there were revived recently and the matter was fully discussed in shipping circles. That a large quantity of grain from the West is now carried to Newport News by the Chesapeake & Ohio road and shipped from there to Europe is well known among grain men. A huge elevator has been built there, presumably by New York capital, and from the nearness of the place to the sea there are many advantages offered to shippers. While the elevator and freight facilities of Baltimore are strong incentives for the non-removal of any trade to another point, the fact cannot be overlooked that without extra exertion Newport News will, in the future, become a strong rival of Baltimore as a grain shipping port.

The Furness Line of steamers, it will be remembered, about a year ago was compelled to relinquish the piers leased at Locust Point, and the greater portion of its trade was transferred to Newport News. The terminals of the latter place are owned by New Yorkers, who will leave nothing undone to direct the grain from the West to that point, and if the Baltimore exporters are really opposed to such a scheme, as the most of them claim to be, they will have to keep wide awake, and see that as good rates by rail can be had from the West here and from here to Europe by the steamship lines. It is natural to suppose that a vessel owner would rather load 180 miles nearer the sea than come to Baltimore. The ship captains also complain of delay at times in getting pilots, which is another thing for shippers to look into and have corrected. As yet, of course, the amount of trade going to Newport News is not materially felt in Baltimore, but a little wedge persistently driven will split a big log.

One of the agents of a large line of steamers running from Baltimore has recently spent several days at Newport News, and it was rumored yesterday that the object of his visit was to make arrangements for having some of the vessels of the line loaded there. There is a large lot of grain in transit from the West to that point. It may be for the Furness Line already established there, but rumor says it is for a rival company.

Grain men claimed to take but little stock in the report of Baltimore firms establishing branch houses at Newport News in

the near future, still there seemed to be an undercurrent of uneasiness as to what the ultimate result would be if proper care was not taken to prevent such a scheme. Among the houses reported as contemplating removing or transferring a part of their business to Newport News were Gill & Fisher and I. M. Parr & Son, two of the largest exporting firms in the city. The heads of both firms denied that any such movement was on foot.

Charles D. Fisher of Gill & Fisher seemed surprised when he learned of the rumor, and said his firm had no intention of leaving Baltimore, or of even establishing a branch house at Newport News at present or in the remote future.

"This," said Mr. Fisher, "is not the season for expanding the grain business, but rather for contracting it." About three years ago, Mr. Fisher said, his firm contemplated establishing an office at Newport News, but the idea was impractical and was abandoned and has never been thought of since.

I. M. Parr of I. M. Parr & Son said he heard of the rumors, but they had no foundation except in the fertile mind of some sensationalist, who had but little to do. His firm, he said, had never contemplated such a step, and he didn't think they ever would, so long as they wanted to make money.—*Baltimore Herald*.

Government encouragement for the production of jute in the Lower Mississippi Valley has proved a failure. The quantities raised are not sufficient to cover even a small fraction of the annual cotton crop. Even under high cultivation, the plants have failed to obtain the luxuriant growth of those raised in India. The difference in the cost of labor in India and this country, together with climatic disadvantages, apparently renders it impossible for us to compete in the production of this article.—*Bradstreet's*.

DEFECTIVE ELEVATORS.

BY ONLOOKER.

Elevator boots are usually neglected more than any other machinery about the elevator. The cause of this neglect is probably because they are usually in a dark basement or pit, set extremely close together. There should always be a reasonable amount of space left between them to enable one to get at the bearings when necessary to oil them and keep them in order. There is usually a conglomeration of spouting that makes it almost impossible to get at the boots, which is a great drawback when it becomes necessary to relieve chokes. In one of the best arranged elevators that I ever saw, I noticed the bottoms of the elevator boots some seven feet above the basement floor. The bottoms were all provided with slides underneath, and in case of a choke the contents of the elevator boot could be dropped into a barrel or box and the elevator would thus relieve itself, doing away with the danger a man usually exposes himself to by having to relieve the choke with his bands. Elevator chokes usually originate in the boot, and I am inclined to think that a majority of fires originating in elevators are caused on account of poorly constructed boots. Sometimes lumber is used that is not sufficiently dry and while drying out unevenly, the pulley is apt to get out of line and cause the belt to run to one side. Lumber at least one and one quarter inch thick should always be used for making boots. It often happens, of course, that a fire originates in the top pulley of an elevator by the shaft being out of line or the shaft having worn itself down into the sides of the head. The holes for the shaft should always be cut at least a half an inch larger than the size of shaft. The elevator should be well braced underneath the heads by fastening long strips from one elevator to the other, and these strips fastened to the bearing posts, so that the elevators are held firmly. This should be done before discharge spouts are attached.

There are, of course, many causes for elevator fires. Some prefer using rubber belts throughout the elevator on account of a fire being detected much quicker as soon as the belts become warmed up.

A blowing elevator is one of the most objectionable things about an elevator. It will blow out wherever there is an escape for it. The cause of this blowing is the stock falling down the back leg. There are various causes for this.

If the elevator does not run at its proper speed the cups will not discharge properly and a portion of the contents thereof will return down the back leg instead of being discharged out into the spout. In many cases the trouble is in the dividing board being too high or too far away from the cups. Sometimes a row of elevators having buckets of various projections and the side boards or "filling" being all of the same widths for appearance sake, will cause trouble if the millwright is not careful to get his spout or dividing board close enough at the discharge.

A blowing elevator also may be the cause of buckets being overloaded, and in other cases where the construction of the bucket is such that only a part of the contents are discharged. Some elevator buckets are not adapted for handling soft stock. They are not properly constructed.

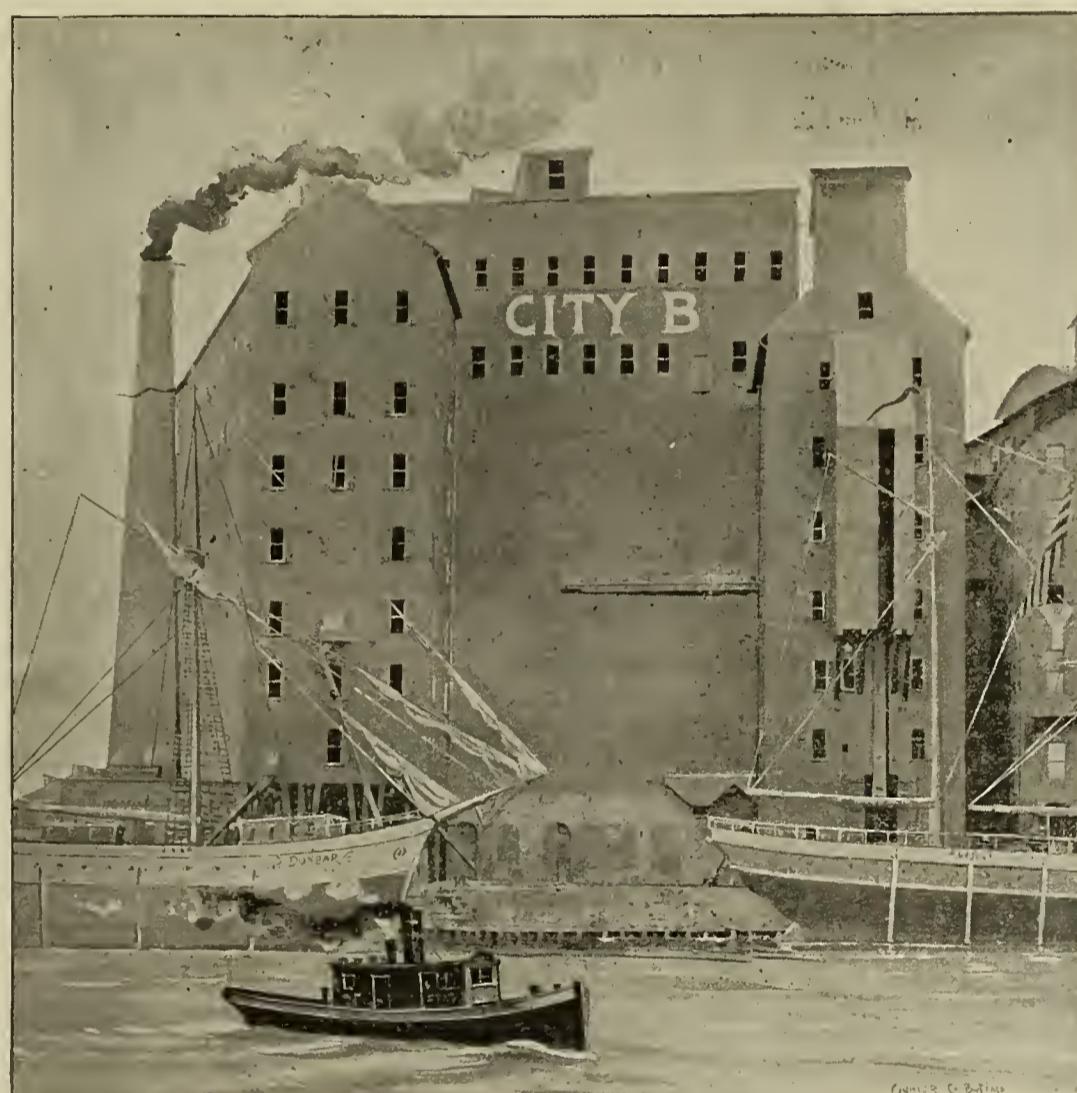
Spouts should enter the elevator in the up leg as much as possible unless it is near the boot, when it is probably better to spout into the back leg to avoid too much accumulation in the boot, thereby closing up the discharge into the elevator, and causing the spout to choke.

An elevator should in all cases be driven at the top and never at the bottom. It is much easier for a pulley to pull up a load than it is to push it up. I have never yet

seen an elevator driven at the bottom that did not cause more or less trouble.

CITY ELEVATOR "B" AT BUFFALO.

During the past year several new elevators have been constructed at Buffalo, N. Y. The largest and finest of these is the one illustrated herewith, the new City Elevator "B," of the Western Transit Company. It has a capacity of 800,000 bushels, and is equipped with a movable marine leg and canal tower. This elevator, which adjoins City Elevator "A," has all of the very latest improvements for handling grain, being fitted for unloading from vessels, loading canal boats and cars at the same time. The machinery is so arranged that any part of it can be operated or cut off at any time, so that only such part of it is used as may be needed to do the work required. It has a capacity for loading a canal boat every half-hour and a car every three minutes. Its movable leg, in connection with leg of City Elevator "A," unloads from two hatches of a vessel at the same time at a rate of over 25,000 bushels per hour, without shifting.



CITY ELEVATOR "B" AT BUFFALO.

This method of elevating is popular among vessel men, there being no strain upon the vessel by unloading unevenly, as it comes up on an even keel and the work is dispatched in half the time formerly taken.

This high class elevator is 137x136 feet, and the height of the structure from grade to top of elevator towers is 143 feet. The walls of the first story are of stone 18 feet 10 inches high. It is one of the finest structures of its kind ever built, requiring over 7,000,000 feet of lumber and timber. This mammoth building was erected in the shortest time on record for so large a building, it actually having been completed from start to finish, allowing for rainy days (of which there were 119), in less than five months.

The elevator is owned and operated by the Western Transit Company, of which Mr. S. D. Caldwell, the vice-president and general manager, is the head. The elevator was designed and built by R. Dunbar & Son, elevator architects and engineers, of Buffalo, this being the seventy-sixth elevator designed and built by this firm. City Elevators "A," "B" and "C" are under the supervision of Wallace Prouty, who has been connected with this property from his youth.

Do not court failure by not subscribing for the AMERICAN ELEVATOR AND GRAIN TRADE.

MANITOBA OATS.

The very good price realized for oats in Manitoba since the new crop began to come to market, is encouraging. At the commencement of the season the prospect was anything but favorable for even fair prices for this grain, and most dealers were predicting very low prices as soon as the marketings of the new crop should exceed local requirements. Prices, however, have so far kept up to a figure which will be very remunerative to the growers. The cause which has led to these favorable prices is the short crop in Eastern Canada. In Ontario the oats crop of 1890 is estimated at 56,572,000 bushels, against 64,346,000 bushels last year. In the province of Quebec the shortage in the oat's crop is much more marked than in Ontario, and a good many car lots of Manitoba oats are finding their way into the former province.

In Manitoba the 1890 crop of coarse grains has been very abundant. The agricultural department place the average yield of oats for the province at over 41 bushels per acre, while individual crops have given returns estimated at 50 to 90 bushels per acre, and even 100 bushels per acre has been claimed for some fields. The reports of some of these enormous yields many will consider unreliable. Be that as it may, the crop is certainly a large one.

The heavy crop in this province was one of the features which indicated low prices. But besides that, the wet weather during harvest rendered the bulk of the barley crop only fit for feed, and there was also known to be a considerable quantity of wheat only fit for feed. These features were likely to further decrease the value of oats. In the United States it was known that the oats crop was very short, and high prices were certain to rule there, but the McKinley bill, with its duty of 15 cents per bushel on oats, stepped in to prevent Manitoba from profiting by the short crop south of the boundary. High prices were certain to rule in the United States, but this heavy duty, combined with the distance from Manitoba to leading markets in that country, would prevent the profitable shipment of our oats in that direction. The outlook for good prices was, therefore, not very favorable until it became known that our oats were wanted to make up for the light crop in the East. Prices in Manitoba country markets have so far not ruled under 25 cents per bushel to the grower, and a considerable quantity has been sold at prices ranging upward from this figure.

In Eastern Canada markets from 42 to 44 cents has been obtained for Manitoba mixed oats, and for choice white 45 and 46 cents per bushel has been obtained. These prices, with the 44-cent freight rate, permit of buying in Manitoba at 25 to 26 cents per bushel. It would cost 22 cents, freight and duty, to lay down Manitoba oats in Minneapolis, the nearest United States market. This cost of freight and duty added to the price paid for the oats in Manitoba, would bring their total cost laid down in Minneapolis up to 47 to 49 cents per bushel, which is 5 to 10 cents more than oats will bring in that market. With the duty removed, Minneapolis would be a better market than Eastern Canada, but the 15-cent duty is sufficient to turn the scale in the other direction. A good deal of complaint is made in the East about the dirty condition of Manitoba oats, and there is certainly some reason for this. It is stated that one car of oats sent to Montreal contained 2,000 pounds of dirt and foreign substance. This amounted to the payment of about \$9 freight charges on dirt. There is considerable room for improvement in the condition in which the grain is usually placed on the market here. The black and mixed oats generally grown in Manitoba are also less valuable than good white oats for shipment. Several cents more per bushel can be obtained for the white varieties, and it would be to the advantage of our farmers to change their seed in favor of the white varieties where they are growing oats for the market.



[We invite correspondence from every one in any way interested in the grain trade, on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interest of the trade at large, or any branch of it.]

GOOD OPENING.

Editor American Elevator and Grain Trade:—We have a fine opening at this place for a grain elevator and flour mill, and will give liberal inducements to parties wanting locations. There are only three small mills in this city and the city is much in need of a large mill and elevators.

I am

Yours truly,

W. W. MARMADUKE.

Washington, Ind.

HAVE DISSOLVED.

Editor American Elevator and Grain Trade:—The firm known as Templeton & Morris, engaged in the grain business at Templeton, Wis., was dissolved Jan. 5, 1891, by mutual consent of the partners. James Templeton will continue the business, collect all debts and pay all claims.

JAMES TEMPLETON.

F. R. MORRIS.

Templeton, Wis.

TOO VALUABLE TO LOSE.

Editor American Elevator and Grain Trade:—We did not receive the December number of the AMERICAN ELEVATOR AND GRAIN TRADE. We consider it too valuable a journal to lose any number of it, and would therefore be under obligations to you if you would send us the December number.

Yours truly,

E. C. BUCHANAN & Co.

Memphis, Tenn.

A GOOD RESOLUTION.

Editor American Elevator and Grain Trade:—This being the first day of the new year (a good time to make good resolutions) we therefore resolved to send you our subscription of \$1 (inclosed herewith) for which please send us the AMERICAN ELEVATOR AND GRAIN TRADE for one year. Having had an opportunity of reading the December number of the AMERICAN ELEVATOR AND GRAIN TRADE, we consider it alone worth double the subscription price. It should be in the hands of every grain dealer.

Respectfully yours,

JOHN TANTON & SON.

London, Ont.

MUST SUFFER.

Editor American Elevator and Grain Trade:—Praise the Lord, we have an honest legislature this winter and we poor sinners will pay for the sins heretofore committed in that body. Crops are poor around here. The average corn crop is fifteen bushels an acre. Considerable winter wheat has been sown this fall. The AMERICAN ELEVATOR AND GRAIN TRADE is the best journal for elevator men there is in the United States. I like it because it is published in the interests of we thieves and robbers, as we are sometimes called. Inclosed please find \$1 for which send me the AMERICAN ELEVATOR AND GRAIN TRADE one year commencing with the January number.

V. E. CHAMBERLIN.

Powell, Neb.

SLANT OF ELEVATORS.

Editor American Elevator and Grain Trade:—Some time ago, when I was unable to make a reply, I noticed a criticism signed "An Old Hand," in which he flatly contradicts a statement of mine in reference to the old method of slanting elevator stands. I had stated that elevators were slanted by the old mechanics, on the assumption that otherwise they would not discharge freely.

"An Old Hand," with the characteristics of a well-bred gentleman and a great scholar, says the statement is not true, because, forsooth, he at one time worked in a grain elevator in which there was a slanting stand, so arranged for the obvious purpose of delivering the grain at a certain point, and not for the purpose of making it discharge well.

Now, I will grant that it is possible for a man, by working a short time in a grain elevator, to acquire a full and thorough knowledge of mechanics, mechanical movements

and all else connected with the science, together with the whole history of it, provided he works hard enough and studies diligently enough.

But at the same time I think it quite possible, where so much is acquired in so short a time, to forget or overlook so small a matter as the original reason for slanting elevators. I suppose "An Old Hand" knows—he must, if he knows everything—that the elevator was invented by Oliver Evans. In his work, "The Young Millwright," he says: "All elevators should stand a little slanting, because they will discharge the better." An examination of the mill drawings of Mr. Evans discloses the fact that in practice he gave his elevators all the way from a little to a great deal of slant. The school of millwrights that followed him imitated him in the matter of giving the elevators a great deal of slant. The writer knows very well whereof he speaks in that matter, because he learned his trade (millwright) in Evans' old neighborhood and among that school of millwrights. About the same time, however, younger and more modern millwrights had begun to abandon the practice, and to run their elevators perpendicularly, unless a slant was required for other purposes.

While not desiring to be understood as questioning the veracity of so learned and undoubtedly sincere a gentleman as "An Old Hand," at the same time I would very much like to see the undercasing of a slanting elevator, and the belt of the same that has been in active service since 1858.

R. JAMES ABERNATHY.

PLEA OF PORT HURON ELEVATOR MEN.

Editor American Elevator and Grain Trade:—The Chicago Board of Trade has joined hands with the Canadian railroad companies to prevent the elevator men and grain dealers of Port Huron and other points along the Canadian line from securing the withdrawal of American custom officials from Canada and their transfer, together with the business of handling the grain business, to American cities. The long letter of the Board's committee to the Secretary of the Treasury is full of misstatements and fallacious arguments. An able reply has been made to the Board's committee by the attorneys of the Port Huron elevator men, from which I take the following:

It is not our purpose to follow up and answer the many misleading and unjust statements concerning this matter which appear from time to time in the press of your city or by communications to the secretary, as our case has been covered in all essential points by written arguments, etc., filed with the secretary for his consideration in the determination of this whole question. But we are led to notice your letter because it is so full of ingenious and misleading statements and conclusions that it seems proper to make direct answer thereto that you may be shown the injustice of your own position in the matter, speaking as you do for an honorable body of men whom it is presumed would not desire to misrepresent any other American interest and favor a foreign interest at the expense of our own American citizens. This whole question, so far as American opposition to certain phases of the present manner of conducting the "banded transit" business is concerned, may be stated in brief terms.

The Grand Trunk and Canadian Pacific railroads of Canada come to our American borders and seek American business for carriage over their lines from the West to the East, and vice versa. That under this system of transportation, as you state, a large traffic in American business is moved over these roads to the benefit of the American producer and consumer, is a matter of fact known to all; that these connections with our American systems of water and rail have resulted in building up immense business interests in the Northwest, and that such interests are dependent largely upon these roads for cheaper rates than might be had over our own lines of railroad from west to east if the Canadian roads were not competitors for the traffic, is also, as you state, a self-evident fact, and is of as much interest to the interests on the American frontier, which we represent, as to your own people and those of the Northwest. The question, therefore, of breaking up this system of transportation of such business becomes at once one of the most serious import to large American interests, though it would undoubtedly injure greatly to the benefit of other American interests represented by our system of railroads running from Chicago to the East, south of Lake Erie.

Your city, as the tributary or distributing point of the greatest importance for Western traffic destined for the East, is justified in seeking the cheapest and best outlet for such traffic, and in this view, from what might be termed a purely selfish business standpoint, would have a right to discriminate against our own railroads south of Lake Erie and in favor of the Canadian railroads and their American connections. But if this claim be admitted it does not follow that your people should have the right to claim in addition that all interests of American citizens connected in any manner with this traffic should be swept aside and the interests which you may have in this traffic given all the preference and all the benefits. The proposition which we have submitted to the secretary does not in any way propose to change the present system to the injury, directly or otherwise, of the American producer, shipper or consumer. Our proposition is, that if American traffic is to be handled by foreign corporations, at the expense of our own railroads, it should be handled with an eye single to every American interest which can be encouraged and fostered in that connection, providing the rates of transportation and necessary physical conditions are met in this relation. We say if this traffic can be handled in American warehouses, elevators, stock yards, etc., and all the adjuncts of such handling (such as tugboat service, dry docks, supplies to vessels, feeding of cattle, re-packing meat cars with ice, etc.,) be

supplied from American capital and labor on our own territory, without detriment to any other American interest connected with such traffic, it should be done as a matter of course as an American policy.

Now, we ask what interests demand that this business should be handled by Canadian capital and labor? The answer is found in the files of the treasury department, which files show that United States custom officers are stationed at points in Canada on the frontier on Lake Huron, and the St. Clair and Detroit rivers, by the department, at the sole request of the Grand Trunk and Canadian Pacific railroads of Canada. As these roads own or control all facilities for handling this business in its transhipment from vessels to its cars, etc., is it any wonder that they strenuously object to any change of the present phase of this transit traffic, and are so vigorously using every avenue, American or otherwise, which may be open to them, to defeat the proposed arrogation of that part of the system they receive so much benefit from? It should be plain to you that any American interest which joins these foreign railroads to help on their wishes in this matter should find its right and reason to do so in clear and positive protection and fostering of its own business, and that it should not allow another American interest to be sacrificed unless its own sacrifice would be equal or greater.

The whole tone of your communication to the secretary is predicated upon the fact that the Grand Trunk, etc., railroads have built up certain interests in connection with this traffic, and that the elevator, etc., interests on the border are seeking to have this business diverted for their benefit. It is true you seek to show that the vessel interest engaged in the grain part of this traffic will be ruined, that being the only substantial interest you admit will be affected by the proposed change, as you admit that the rates of freight are the same by the routes we contend for as by the route you champion before the secretary; of the vessel interest we will speak later on. Now, will you permit us to ask you as an American citizen, what would be the attitude of the Chicago Board of Trade on this whole question if Chicago were now situated, physically, where Port Huron now is, and had the same relations, therefore, to this matter which Port Huron now has? Would Chicago then be minded to look at this matter with more candor and fairness than now? Admitting all the rights that Chicago ought to have in this traffic, everything which should fairly inure to her, even though it should hurt Port Huron and other border cities, has she any just right to claim things which are not necessary to her but solely for the interest of her Canadian traffic friends? Now permit us to ask you, do you not to-day send grain by way of Sarnia and Port Huron to points in the East via vessels to those points at precisely the same rates as via Georgian Bay ports to the East? Is it not a fact that the vessel charge to Sarnia and Port Huron, points immediately opposite each other on the St. Clair River, is less than the vessel charge to Georgian Bay ports? Is it not a fact, too, that a considerable number of vessels engaged in this trade go direct from Chicago to Sarnia in your Eastern grain trade, and are not the through rates via vessel and rail to Boston the same via both routes? What inducements, therefore, do you Chicago gentlemen offer to your western farmer, producer, etc., in sending their grain via Georgian Bay as against the Sarnia or Port Huron route? You speak of the special inducement and necessity to vessels to go to Georgian Bay because of the return cargoes in railroad ties, cedar posts, telegraph poles, etc.; has it occurred to you that if there were really such great inducement in this particular, vessels would naturally be glad to charge less to go to Georgian Bay ports than to Sarnia and Port Huron? But the fact is they charge more, due no doubt to the more dangerous character of navigation and greater risk attendant thereon. Has it occurred to you that these same vessels can and do receive the traffic coming to the St. Clair River via the Grand Trunk from points in the East, and carry the same to Chicago, and that they can and do find better and surer return freights at Port Huron, Sarnia and Lake Huron ports on the American side than they can or do at Georgian Bay ports?

It is a well-known fact that many vessels engaged in the Chicago-Georgian Bay trade are compelled to come over to American ports on Lake Huron for return cargoes. Where, then, do you find justification for your broad assertion to the secretary, that to compel all this business to be brought to American ports on the frontier will mean the entire destruction of this particular class of vessel interest? Do you not see that your statements are unwarranted by the facts? Yet you, representing a body of eminent business men, speak in their behalf, giving this as a paramount reason why you should join hands with foreign railroads to kill off any other American interest which these corporations are trying to crush. Another point: Do you contend for a moment that the Georgian Bay route is less dangerous or less risky in any way than the Sarnia or Port Huron route? Do you, as business men representing the best interests of the farmer-producer, and whom you speak so strongly in your letter to the secretary, say that if the Port Huron route were to-day a fixed fact, and the Georgian Bay and Sarnia transhipment gave way to the Port Huron and other American frontier ports transhipment, you would lower the price you pay the farmer for his grain one penny? If so, how would you be justified in doing so when, as we have already shown, the vessel rate is cheaper that way, and the rates from Port Huron and Sarnia and the Georgian Bay ports to the East are one and the same?

The regulator of rates via these routes, as you know, is the Ogdensburg Transit Company, a line of large steamers run in connection with the Vermont Central Railroad, which carry grain to Ogdensburg from Chicago by water, and by rail to points in Ogdensburg to points in the East at the same rate precisely as the Grand Trunk system. Another regulator is the Buffalo lines of steamers from Chicago; hence the interest of the farmer in cost of transportation is not at the mercy of the Grand Trunk system, and Chicago's interests are not jeopardized in competition with other cities, and especially under the Port Huron contention.

While constant attempts have been made, and are still being made, to belittle this matter by statements as to the number of people who would be benefited by the proposed change, and by repetition over and over again that only a very few citizens were interested, that it was and is a selfish move to benefit elevator men, etc., and that, therefore, it was not a matter of any consequence whether their petition addressed to the secretary was granted or not, we have to say to you that in our opinion, under the present form of our government the just claim of one American citizen is entitled, or should be, to as much consideration as the claims of ten thousand or more citizens under like conditions. The very large interests represented in the settlement of this question on the American frontier, comprising capital and labor of thousands upon thousands of dollars yearly, growing out of the handling of this traffic, will be pushed with all the vigor and

constancy which the just demands they have made call for, and we confidently assume that the rights of the American citizens we have the honor to represent will be fully and thoroughly considered by the secretary from a just American, and not from a foreign standpoint, despite misrepresentations and sneers from the representatives of foreign railroads and their non-American allies in this matter.

The foregoing very clearly sets forth the position of the Port Huron elevator men, and shows how narrow minded, unpatriotic, selfish and unjust the directors of the Chicago Board of Trade can be. What prompts them to act the part they do is a mystery, for surely no benefits will accrue to the members of the Chicago Board of Trade or their friends, (?) the Western farmers, by the continued control of the traffic by the Canadian railroads.

The Port Huron elevator men have asked no outside parties to aid them in securing justice, but of course they would be pleased to have elevator men and grain dealers of the country use their influence in the case.

JUSTICE

SHRINKAGES AT CHICAGO.

Editor American Elevator and Grain Trade:—I am glad to see so much in the AMERICAN ELEVATOR AND GRAIN TRADE about shrinkages in Chicago. One month this fall the value of our shrinkages in Chicago, after deducting for freight, amounted to \$68.12, freight about \$5. Somebody got \$73 worth of grain that we lost and the railroad lost about \$5 in freight. Some months our cars average over ten bushels of shrinkage, other months five or six bushels each. Perhaps there is that difference in the men who do the weighing. It is very seldom that we have a car overrun, and then only from a few pounds to three or four bushels.

We keep an account with every bin. After loading a car we look into the bin to make sure that all the grain has run out. If all shippers knew just how much they put into each car and how much they lose in shrinkage at Chicago, they would ship more grain to other markets. We never hear of the buyer being dissatisfied with Chicago weights. It must be in the interests of the railroads as well as the shippers to have this shrinkage of weights stopped. Enclosed find \$1 for another year's subscription to the AMERICAN ELEVATOR AND GRAIN TRADE.

Yours truly, A. L. CLARK & CO.
Ashton, Ill.

CLEAN YOUR GRAIN.

Editor American Elevator and Grain Trade:—From a paper which I read recently I learned that a grain shipper in the Northwest had paid nearly \$10 freight on the dirt he shipped with a load of oats, and I am prompted to call the attention of grain shippers to the fact that many of them pay out considerable every year in the same way.

At \$10 per car the elevator man who now ships 100 cars of dirty grain per year would save \$1,000 in freight. charges by cleaning his grain before shipping. He would also obtain a much better price for the grain and be could make a profit of at least \$3,000 more on the 100 carloads.

It is foolishness for country elevator men to ship dirty grain, for if it is very dirty it will be docked. Country shippers may rest assured that the amount docked at grain centers is always enough to cover more than the quantity of dirt in the grain. It is better to be on the safe side, you know.

Then, too, at some grain centers, and it may be at all of them, a little dirt in a carload of grain makes a great difference in the grade. I have found that some inspectors are more liberal on this point than others, but most of them watch it very closely.

Hoping that the foregoing information will be influential in causing at least one grain shipper to give his grain a thorough cleaning before shipping it, I am,

Very truly, A SUBSCRIBER.

A DOLLAR APIECE.

Editor American Elevator and Grain Trade:—We enclose \$1 for which please send us the AMERICAN ELEVATOR AND GRAIN TRADE for one year commencing with the January number. You have mailed us several sample copies free, for which accept our thanks, as each copy is worth \$1 to any grain dealer.

Truly yours, M. D. BURKE & CO.
Pemberton, O.

A farmer of Jewel Co., Kan., has just sold his corn crop of 1889. An eighty acre tract yielded him \$1,400.

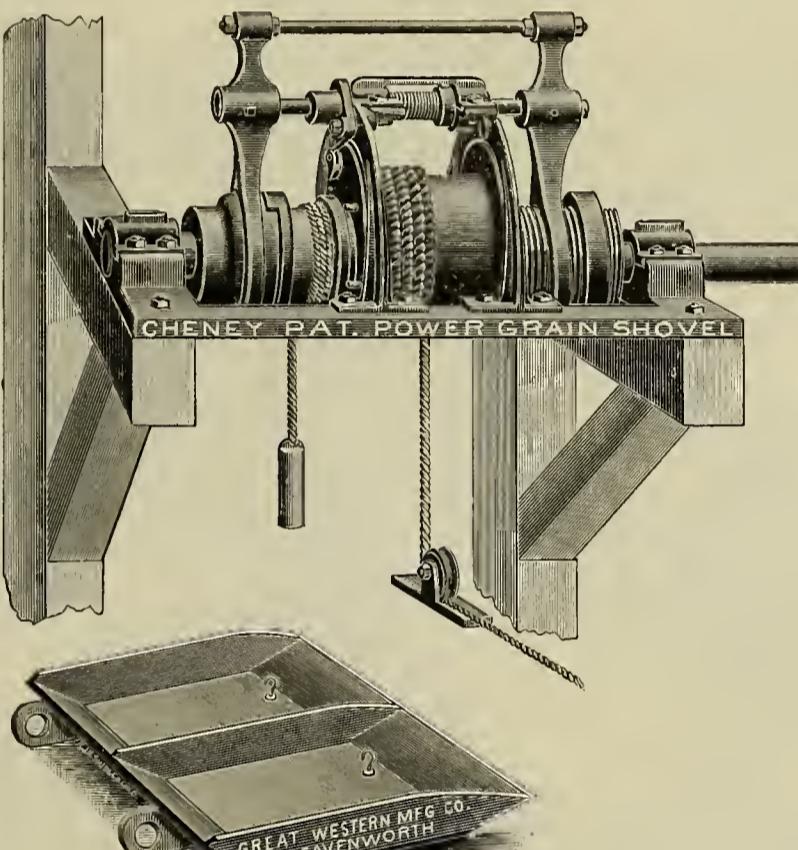
THE CHENEY "PEERLESS" POWER GRAIN SHOVEL.

The accompanying cut illustrates the general appearance of the "Peerless" Grain Shovel which is designed for the rapid and economical transfer of grain of all kinds from car to elevator. Where the quantity of grain handled is considerable the economy of this machine will be appreciated. In designing this machine, the defects that have been discovered by closely observing the operating of other machines has been made a subject of careful study, in order to fully guard against them.

The cut shows a single, or one shovel machine, designed to be operated by one man; double or two shovel machines, mounted on one frame, designed to be operated by two men, are also built by the manufacturers of this machine.

With a single machine a man can unload a car of 500 bushels of grain in about fifteen minutes; or two men with a double machine will unload a car of same capacity in less than half the time. It will thus be seen that a great saving in the cost of labor of unloading will be effected where considerable quantities of grain are handled.

The machine is extremely simple, easily set up, and re-



THE CHENEY POWER GRAIN SHOVEL.

quires small space; it is well built, nicely finished and easily operated. The machine is perfectly automatic, and does not require skilled labor to operate it. When working, it will go into gear at any point where the operator stops in car.

It does not jerk or catch the rope while the shovel is being carried back into the car. This desirable feature is secured by the perfect ease with which the spool works on the shaft, and by the peculiarly constructed, yet simple, positive automatic lock. This lock is provided with a tappet so arranged that when the rope is uncoiling, as the shovel is drawn into the car, the tappet cannot catch and jerk the rope as is the case with other machines. The shovel will not start until the operator stops and gives the rope slack, and at the same time the shovel has positive stop at the car door. The travel of the shovel can be regulated to any desired length of car by the adjusting nuts and steel collars provided for that purpose.

It is a well known fact that lost motion caused by wear is a source of great trouble and expense in power shovels. The "Peerless" Shovel is provided with steel adjustable collars, screws and nuts, by which all lost motion can be compensated for. The clutches are provided with hardened steel jaws and every part of the machine is built with a view to durability.

Parties desiring to arrange to handle grain more economically are invited to correspond with the GREAT WESTERN MANUFACTURING COMPANY, Leavenworth, Kan., who are owners of the patents, and sole manufacturers of this machine.

SEED WHEAT.

Every grain dealer is interested in securing for his own immediate locality the best wheat possible. Very often the difference between the wheat raised in two localities is simply a matter of careful seeding. The following is from an authority, and we commend it to our readers for the benefit of their farmer friends:

"I take the wheat from the best half acre and run it through the fanning mill in such a way as to take out merely the screenings—the very small and badly shrunken grains. In most seasons these would amount to one bushel out of from twenty to forty. All grains of fair size are left in the seed. Perhaps you ask: Why not grade the wheat from the best half acre? Well, which heads contained the largest grains—the small ones with a few kernels, or the ones that had twice as many? I have thought for some years that the former did, and I do not care to plant them to the exclusion of others. If it were practical to select the best heads from the best half acre, and then the best berries from them, I would like to do so; but as far as my present knowledge goes I do not care to grade my seed from the best of the field, except to take out the very poorest. I have not jumped at this conclusion as a matter of theory, for it is the result

of a good deal of observation, and still I presume that nine farmers out of ten who go out to buy seed wheat would select fine, plump grain from a field which had yielded twenty or twenty-five bushels per acre, rather than an inferior looking article somewhat smaller, and perhaps a little shrunken, from a field which they knew had yielded thirty-five or forty bushels per acre."

THE HESSIAN FLY.

Bulletin No. 12 of the Illinois Agricultural Experiment Station has the following regarding this destructive little insect:

The views of the history and habits of this insect current among those who suffer from its ravages, are often confused and largely erroneous, chiefly because the egg is minute and almost never seen by the ordinary observer, the young maggot being constantly mistaken for it—and because very few have ever recognized or seen the adult winged insect.

The Hessian fly is, in this state, practically a wheat insect only, its occurrence here in rye being merely occasional. Each generation goes through the four distinct stages of (1) the egg, (2) the maggot or larva, (3) the pupa or "flaxseed," and (4) the adult or winged insect. The injury is done wholly in the second of these stages—the "flaxseed" being dormant, a stage of transformation merely from the maggot to the winged fly—and the latter being itself entirely harmless.

There are always two destructive generations in a single year, and under some circumstances at least three. In fact, there may be even four generations which attack the wheat with destructive effect, two in the spring and two in autumn. The principal injuries, however, are done by the last autumnal and the first spring generations.

The bulletin from which the above extract has been taken will be sent free of charge to any person engaged in farming in the state of Illinois who will send his address to Agricultural Experiment Station, Champaign, Ill.

DISAPPOINTING BARLEY MARKET.

An old time operator on the Chicago Board of Trade said recently: "The barley market has been the most disappointing of all the cereal crops. In the first place the government—or Uncle Jerry Russ—said the barley crop was the shortest of all; then the McKinley Bill cut off the Canadian imports. So at the opening of the market the Eastern and Western brewers and malters bid against each other. The question has often been asked, how high did barley sell? The trade can tell that barley screening sold for \$20 a ton, or equal to 60 cents; now 45 to 60 cents. It may be just as high in the future, if we knew how high that was."

The grain inspector at Port Arthur, up to Dec. 1 inspected 2,560 cars of Manitoba wheat, containing 1,664,000 bushels.

SECOND-HAND VS. NEW MACHINERY.

BY PLUMM.

There are people who seem to have a mania for second-hand goods of every description, and among them will be found many elevator men and millers. Many of them seem to think that second-hand machinery is just as good as new, and if they can buy it for a trifle less money than new machinery, will do so.

While admitting exceptions, it must be affirmed that as a rule that plan of securing machinery is all wrong.

For various reasons machines are sometimes discarded before being much injured by use. For instance, an elevator separator may prove to be too small for the work required to be done, and is therefore laid aside to make room for a larger one before any material injury has been sustained by use. Such a machine may be safely purchased by another party, whose purpose it will suit with safety, if a reasonable price only is asked for it. It, however, would not be wise business policy to pay the price of a similar new machine for it. Sometimes, too, steam engines are replaced by larger ones before much wear and tear injury has been sustained, and they may be bought with safety by others needing such engines at a reasonable price only. The same may be said of various other kinds of machines, but all of which we call exceptions to the rule opposed to the indiscriminate selection of second-hand machinery for any purpose.

A man may pick up a second hand machine here and another there, also pieces of belting that have been long used, and many other things that go to make up an outfit for an elevator or mill, for a song, as he calls it, and proceed to fit up his elevator with it; but the time comes when he will learn that he has paid about as dearly for his little song as did the boy Ben Franklin for his little whistle.

Having probably already lived long lives of usefulness, first one and then another piece of machinery will give way from sheer exhaustion, or advanced old age. Then a stop ensues and repairs begin. Something new is blended with the old, and with the alluring hope of all obstacles being finally overcome, the elevator is started, but as "youth's brightest hopes decay," so decays the hopes which become a stinging reproach to the man who has loaded up with a lot of worthless second hand machinery, because he could buy it for a song. The patching of the old with the new does not seem to do well. It is like the putting of new wine in old bottles in the olden time. The new and the old do not harmonize, and soon more breaks and more stops, and more drafts on the emaciated pocket-book of the unfortunate owner of the worthless second-hand machinery that was bought for a song. It was the song of the siren of cupidity, and like the song of all sirens lures in the direction of ruin.

But to go back for a moment to the beginning again. The mere purchase of machines and machinery is not all there is to the erection of a plant. It requires as good and expensive a building for an outfit of worthless second-hand machinery as it does for a line of new machinery, and it costs just as much for millwright work to place and connect the worthless outfit as it does to put in a good new outfit—really more, for in all probability most of the old machines have to be repaired to begin with.

After all this has been fairly considered, how much has been saved on the first cost, which is the only thing aimed at? Reducing the first cost, on the peuny wise and pound foolish plan, is the object, without any thought of or care for the future. But how much is saved, is the problem to figure out. Aside, however, from the loss and disadvantages that worthless second-hand machinery brings to the purchaser, there is at least one phase of it that is criminal. A man may, if he thinks best, deplete

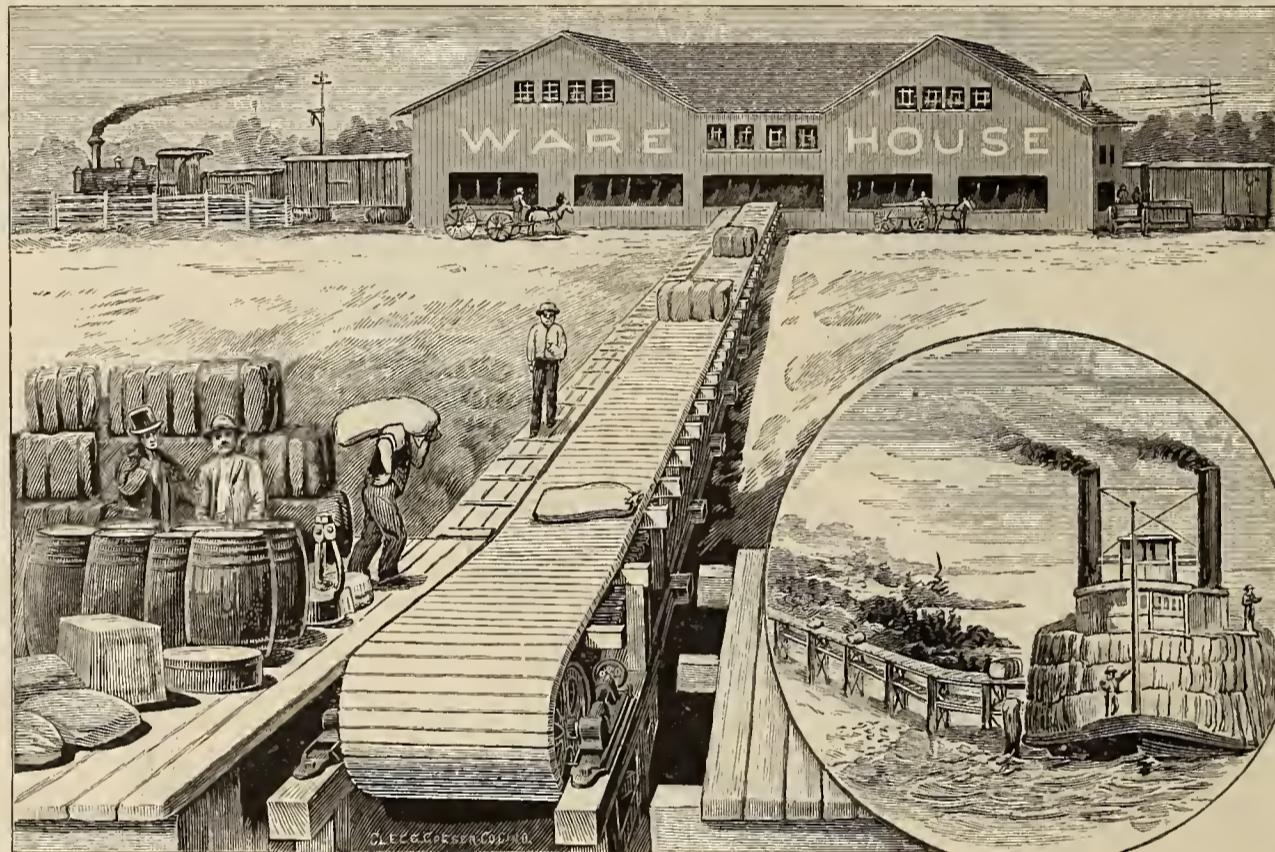
his pocket-book by the purchase of second-hand machinery of all descriptions, including worn-out steam-engines, but when he buys half worn or burned out steam boilers and puts them to work at generating steam, he commits a grave offence, to say the least, by endangering human life. If as a result, human life is sacrificed, then the original act becomes positively criminal.

By taking that view of the situation, avaricious men may be induced to save their pocket-books through fear of committing a crime, so far as the purchase of steam boilers is concerned.

They may, as conceded, buy anything else second hand, but when it comes to the steam boiler, there they must pause and consider. The steam boiler should be absolutely good, and hence ought to be new and made of the best material. Even then, when carefully handled by competent men, disasters often come, and of course may and undoubtedly do come under the most skillful management, owing to unseen and unknown defects. But the man who purchases a worthless second-hand boiler should be criminally dealt with in case of disaster and loss of life.

ENDLESS FREIGHT AND PACKAGE CONVEYOR.

The Endless Freight and Package Conveyor is a device



ENDLESS FREIGHT CONVEYOR.

for the rapid and economical handling of boxes, bales, barrels, sacks and packages of every description, built by the Jeffrey Manufacturing Company of Columbus, O. The illustration herewith represented shows the application of endless carriers to warehouses and steamboat docks for the carrying of freight, for the loading or unloading of vessels. The carrier consists of a double line of special carrier chain, which has wood flights attached to each or every other link. This forms a solid floor or platform, upon which the material is placed, and while in operation is always in position to receive freight as fast as it can be placed upon it, thus making it possible to handle large quantities of freight in a short time. Every link of this carrier chain is made with a large roller, which serves as a truck to carry the load, making it practical to carry heavy loads with but little power. At the discharge end of these conveyors the material is delivered without further handling outside of what is required to keep the discharge point clear. These conveyors are comparatively inexpensive, and effect a great saving of labor, making it possible for five or ten men to do what under ordinary circumstances would require four or five times that number. The use of endless carriers is not confined to the abovementioned industries, but is adapted to elevators, mills, distilleries, tobacco, cooperage, nail works, etc.

Recently a sample of wheat was shown on the Chicago Board of Trade from Winnipeg, of which the *Herald* says: "It was pronounced the finest ever seen here. It ran 66½ pounds, and the perfection of the berry was marvelous. It was grown from Black Sea seed."

ELEVATORS NEEDED IN LONDON.

In the port of London, where the compact concluded between the dock companies and the Dockers' Union has during the past year been carefully observed by the first contracting party, the conduct of the laborers has left very much to be desired, says *The Miller* of London, and it is probable that the dismal tale unfolded by the Allan Company in the public press could be retold by many other firms if they were not apprehensive of irritating their present time masters—the London dockers. But for all that, there are quiet corners in Lime street and Great St. Helen's which have echoed with complaints of broached cargoes of ships detained in the river for days, and even weeks, beyond the proper time, and of continual clamoring by the waterside laborers for more money under one pretext or another. Of this latter infliction shippers of grain cargoes appear to have had their full share. It is but a week or so ago that Mr. Phillips of the well-known Seething Lane firm was called upon as arbitrator in a dispute between the Allan Company and a gang of corn laborers, who claimed "dust money" (an extra halfpenny per quarter) for clearing a cargo of maize. In this case the arbitrator allowed the claim on the afterhold, though he disallowed it in the foreholds. This is, however, a typical instance of what has been going on in the London docks during the past twelve months.

Yet there is a gleam of hope in the new scheme to come into operation this day, or exactly one year from the date on which the "Mansion House Agreement" came into force. Not that the former scheme abrogates the latter, so far as the increased scale of dock labor remuneration is concerned. It is simply intended to supplement it by providing for a permanent staff of porters, who will be engaged by the dock companies at a weekly commencing wage of 24s. These men will be entitled to pensions at the end of five, ten, fifteen or twenty years' work, the amount of the pension being of course regulated by the duration of service. The companies are said to have been overwhelmed by applications from men desiring to be enrolled on the permanent staff, and it is gratifying to find that the union leaders

bave bad the good sense not to attempt to object to the employment of permanent workers. By creating such a staff the companies will provide the docks with what they bave most lacked since the decay of the Fellowship Porters—a body of sober, industrious men who have a solid stake in their calling. This will be much, but it will not be all. If London is to retain its supremacy as the mart of the world, its docks and wharves must be supplied with something else than hand labor, however skilled and well drilled. Hamburg, one of the greatest grain ports in Europe, is well supplied with elevators and other mechanical substitutes for manual labor, and there is no reason why the capital of Great Britain should lag behind that German port. We are perfectly aware that the use of the grain elevator has already caused great discontent and also some rioting among London "cornies," but it can hardly be supposed that the port of London exists for the sole benefit of its casual laborers, and this, if ever, is a case where the interests of the few must make way for those of the many.

H. A. Crossman, Needham, Mass.: "I would not try to run the grain business without the AMERICAN ELEVATOR AND GRAIN TRADE."

The Morden (Man.) *Monitor* says: "Many farmers are expressing the hope that Messrs. Crossley & Hunter will, on their arrival in Morden, devote particular attention to converting the grain buyers of this district to the principles of Christianity." We rise to ask what is to become of the farmers? Will they kick if they do not receive any of the principles?

A NEW SELF-REGULATING AUTOMATIC GRAIN SCALE.

The new Self-Regulating Automatic Grain Scale shown on this page has recently been bought out by the Pratt & Whitney Company of Hartford, Conn. In some respects this new scale may be considered the outgrowth—as it is the successor—of the Hill Automatic Grain Scale, whose manufacture was undertaken by this company several years ago, and which, as our readers will remember, was illustrated and described some time ago. The successful and accurate weighing of grain by automatic machinery is a problem which, though besieged for many years by a multitude of inventors, has until recently been considered by practical men as almost unsolvable; but we are assured that now all the difficulties incident to this problem have been successfully overcome. The record already made by the "New Model Pratt & Whitney Grain Scale" seems to fully substantiate this claim, prominent people in the grain trade testifying in the most unequivocal terms to the accuracy and value of the scale.

The manufacturers call especial attention to the fact that their "New Model" Grain Scale is a new and comprehensive invention, based on newly discovered principles of operation. The former machines, of which a considerable number are still in service, made excellent records when running under favorable conditions and in the hands of experienced operators, but proved too complicated and too sensitive of adjustment for general use. This circumstance rendered it necessary to begin anew, and by careful research and experiment extending over several years and involving a large outlay, to produce the Self-Regulating Automatic Scale, which is now offered to the trade as being a *simple, effective and reliable* instrument for weighing and registering all kinds of grain. Besides controlling the original patents of Mr. J. W. Hill, the Pratt & Whitney Company now own, as assignees, upward of forty letters patent, granted and pending, for an extensive system of improvement in grain-weighing machinery, covering, as they believe, all that is of essential value for that purpose. The new improvements are the inventions of Mr. Chas. H. Cooley, who is in charge of the company's grain scale department, and of Mr. Francis H. Richards, mechanical expert, under whose supervision the New Model Scale has been developed.

For the grain bucket, the double-chambered oscillating style of bucket of the former machine has been retained, it being considered the most reliable type for general use; in other portions of the machine, however, radical changes have been made.

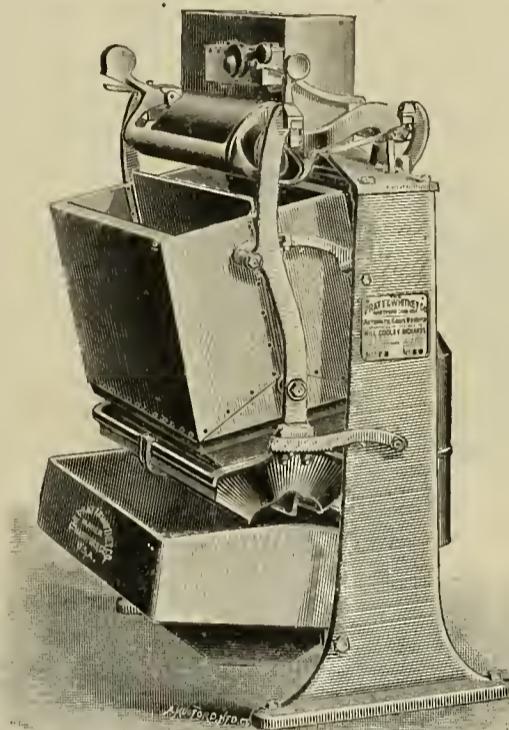
In order to secure reliability of operation, all adjustments, except the single adjustment of the main weight to bring the load to the required amount, have been entirely discarded, so that the scale may be safely handled and cared for by ordinary workmen and operators. The principle has been followed of *constructing the machine in adjustment*, instead of making it adjustable into working condition. Hence the scale is not only a working machine but is also *an instrument of precision*. By the same means also the parts are reduced to the least possible number and those of the simplest description. The frame is cast in a single piece and the entire valve mechanism, together with the scale beam, is assembled on the top plate, which includes also the supply chute. This permits a method of manufacture at once simple and reliable. All the working parts are supported and connected by pivots or knife-edges, fitted for free action to avoid liability of clogging from dust or moisture. All of the parts are of metal, no leather, rubber, wood, brushes or other perishable material being used in any of the scales, and none of the parts require any lubrication other than that furnished by the inevitable dust of the mill.

One of the indispensable features of an automatic grain scale is the regulator whereby the scale shall be automatically retarded or stopped whenever the weighing is faster than the grain is taken away. In this machine the regulator is a movable hopper of peculiar construction, located below the grain bucket and connected with the valve mechanism in an entirely new and original manner, whereby the cut-off valve is made to serve a double purpose. First, to cut off the grain in the ordinary working of the machine, and second, to close the supply chute on the operating of the regulator hopper by an overload of grain. This valuable feature (separately covered in all its forms by a series of generic and specific patents) effects the regulation without the use of a separate or special regulator valve, thereby avoiding one of the hith-

erto most serious impediments to the reliable operation of a self-regulating scale. For this purpose the cut-off valve is operated through a "shiftable valve-actuator," which has a normally fixed position on the scale beam (or valve) and is temporarily shifted into an inoperative position on the descent of the regulator hopper, thus in a sense throwing the valve mechanism "out of gear."

The two portions of the valve mechanism for operating the reducing valve and the cut-off valve respectively are so organized in connection with the scale beam and the valve-actuating devices that the machine is completely "self resetting." By this is meant that however misused or tampered with (unless actually blocked in some way), the scale starts or goes on properly when released or let alone, there being no "let-off" catches or like unreliable devices whose premature action will disarrange or stop the operation of the scale.

The weight or load which must be weighed by an automatic scale is, in fact, made up of three quantities, viz.: The *actual load* in the grain bucket, the *momentum*



THE PRATT & WHITNEY SELF-REGULATING AUTOMATIC GRAIN SCALE.

of the loaded scale beam and grain bucket, and the *impact* of the drip column at the moment the load is completed. To reduce the impact to an appreciable quantity, the drip-column is reduced in both height and size to the smallest practicable dimensions, and to overcome the still more objectionable momentum, the valve mechanism is provided with a patented "reducing valve" and valve actuating devices whereby the first flow of grain into the bucket is gradually reduced in a peculiar manner and the nearly loaded bucket brought to rest close to its poising position, without jar or shock. An incidental but very important advantage arising from this feature of the scale is the extreme rapidity with which the bucket may receive the major part of its load, thereby largely increasing the normal capacity of the scale without sacrificing certainty of operation.

A unique feature of the scale is the new system of discharging the load without using any part of the momentum of the loaded scale beam, or the weight or force of the falling grain, so that the scale will run continuously, however slowly the grain is supplied thereto. This is effected by a feature of the valve mechanism, whereby a portion of the weight of the cut-off valve is suddenly thrown upon the scale beam instantly; this passes the actual poising point, thus furnishing from an extraneous source ample power for unhooking the bucket catches, and this without the addition to the scale of a single piece or interfering in the least with its *resetting* quality.

A new and effective stop motion is furnished when required for stopping the scale whenever any predetermined quantity of material has been delivered, as for filling bins and cars.

The register is connected with the scale beam in such a manner as not to affect or resist the movement of the beam while the weight is being taken, being actuated only on the upward stroke of the grain bucket, when there is an abundance of power for the purpose. By taking the register readings daily, the proprietor obtains an accurate knowledge of each day's business.

These scales are made in a series of sizes, and are

adapted for the weighing of all kinds of grain, including malt, meal and bran, and have been fully tested in regular commercial work, where, we are assured, they are found to meet every requirement. In one test, extending over two months and made by Smith, Northam & Co. in their extensive works at Hartford Conn., 50,000 bags of corn meal were weighed, every bag of which was reweighed on a platform scale, the automatic scale being always found correct. At the Jewell Milling Company's, Brooklyn, N. Y., a half-bushel "New Model" Scale ran steadily day and night for one year on uncleared wheat, delivering over two and one-half million loads (of one-half bushels each), without requiring any care or suffering any loss of accuracy. These truly remarkable results indicate that in undertaking the solution of this problem THE PRATT & WHITNEY COMPANY have maintained their well-earned reputation of standing in the front rank among the producers of labor-saving machinery.

WHEAT IN HUNGARY.

As an agricultural country Hungary possesses vast natural resources. The soil is in most places exceedingly fertile. It does not get, because it does not need, the copious application of manures, as our farmers in this country have to use. In many parts, indeed, the fruitful soil is six feet and more in depth. In a large part of the center of the country the rich loamy soil seems to have been nourished for ages by the mighty Danube River, the Nile of the East of Europe. The land is protected also in a great measure from the cold winds of the north by the extensive range of the Carpathian Mountains; and, as the ground slopes to the sun, it receives the full power of the vivifying solar rays. The Banat, the district surrounding Buda-Pesth, the capital, is the most fertile in all the country. The variety of wheat that is grown in this favored spot is small but heavy, and of great hardness. The soil is so rich that two crops a year are commonly taken from it. The first crop is sown in March, and is early ripe, the harvest usually being completed by the middle of June. They have thus a precedence in the European markets. The second crop is put into the ground about September, but the quality of the wheat is greatly inferior to the summer growth, and is mostly used for home consumption. Of course, as in other countries, seasons vary, and many districts have of late years been frequently devastated by floods. In 1889 the harvest was considered the poorest that had been for a decade. About half the production of the country is exported in the form of wheat to Austria, to Switzerland, France, etc.; but flour to the value of from \$20,000,000 to \$25,000,000 is exported. Of this amount about a fifth goes to Great Britain, which is the chief foreign market for the export of flour.

FLAXSEED AT CHICAGO.

We give below a table showing the receipts and shipments of flaxseed at Chicago, according to the inspectors' report for the past year as compared with the preceding year. The increase in the receipts for the year was over 100 per cent. and a little over 50 per cent. in the shipments:

	Receipts.		Shipments.	
	1890.	1889.	1890.	1889.
January.....	164,500	94,500	157,698	170,739
February.....	122,500	46,000	84,462	43,127
March.....	93,000	28,500	131,890	78,705
April.....	93,000	16,500	158,957	60,554
May.....	69,500	15,500	121,587	79,180
June.....	48,500	43,000	59,818	21,042
July.....	129,500	40,000	57,574	24,253
August.....	1,056,500	440,000	520,380	209,611
September.....	1,999,000	936,500	959,789	712,342
October.....	1,821,000	932,500	1,315,468	758,719
November.....	1,162,000	625,000	703,476	631,211
December.....	537,000	297,500	355,902	189,912
Total	7,296,000	3,515,500	4,627,001	2,979,395

The *Dubuque Trade Journal* says: The AMERICAN ELEVATOR AND GRAIN TRADE is an unusually excellent journal of its class. It is a large magazine with light green tinted cover and twenty-eight pages. The material, typography and press work are of the best quality; and the contents are able, interesting and thoroughly embrace the interests of cereal food products. The price is only \$1 a year, and it should be taken by every miller and grain dealer in the land.

[For the AMERICAN ELEVATOR AND GRAIN TRADE.]

COLLECTION OF DRAFTS BY BANKS.

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There has been some litigation of late involving the principles of collections by banks, which seems to be of general interest. The Hamilton Bank case, decided by Judge Gresham at Indianapolis last summer, was one which created much comment. A customer of the Commercial National Bank of Cincinnati placed with it for collection a draft for \$3,497.49. This was forwarded by the Commercial National Bank to Fletcher & Sharp, who in turn forwarded it, indorsed "for collection," to the Hamilton National Bank of Fort Wayne, which made the collection. Instead of remitting the collection to Fletcher & Sharp, the Hamilton Bank credited the amount to them on its books and then notified them of the fact. Upon receipt of this notice Fletcher & Sharp credited the amount to the Commercial Bank, and notified it of the credit. Under the arrangement between Fletcher & Sharp and the Commercial Bank, the former were to make remittances for collections on the 1st and 15th of the month. The notice of credit by Fletcher & Sharp was received on the 12th of the month, and a charge made of this amount to their account on the books of the Commercial Bank. On the 14th of the month following the receipt of the notice of credit, that is, two days thereafter, and one day before a remittance was due to the Commercial Bank, Fletcher & Sharp failed and closed their doors. There was an arrangement between Fletcher & Sharp and the Hamilton Bank under which, instead of remitting collections to each other, each remitted to the banking firm of Winslow, Lanier & Co. at New York, with whom both had accounts, and the balance between them was adjusted at that bank. On the 13th of the month the Hamilton Bank notified Winslow, Lanier & Co. to credit the firm of Fletcher & Sharp with the amount of this collection. The Hamilton Bank learned of the failure of Fletcher & Sharp on the 16th, and made no effort to countermand its order to Winslow, Lanier & Co., although it might have done so by telegraph before the letter could reach New York. It so happened that Fletcher & Sharp were indebted to Winslow, Lanier & Co., and that this credit was absorbed by the debit on their books. There can be no question under these circumstances but that the owner of the draft could require the Commercial National to make good his loss, but the question which arose was as to the place of ultimate liability. Had the draft been originally placed with Fletcher & Sharp it would have been a question for the owner of the draft as to where he could look for his money, and it is that which makes the case of general commercial interest.

The indorser of commercial paper has, of course, an undoubted right to transfer it for a special purpose by means of a restricted indorsement. An indorsement for collection simply makes the indorsee the agent of the owner for the purpose of collection only, and he can gain no title either to the paper or its proceeds, except the legal title to present and, if necessary, sue upon the paper for the benefit of the owner; that is all an indorsement for collection transfers. It follows from this that the Hamilton Bank acquired no title except as the agent primarily of Fletcher & Sharp, and ultimately of the owner of the draft. It is clear that under terms of such agency the Hamilton Bank had no right to transfer the money absolutely to Fletcher & Sharp, and that when it did so it assumed the responsibility of getting the money into the hands of the owner. If the specific funds collected had been transmitted to Fletcher & Sharp, in the event of their failure it would have been the property of the owner of the draft, and not of Fletcher & Sharp. By passing this fund out of the control of the agency which had been created, and placing it in the personal property of Fletcher & Sharp, the Hamilton Bank incurred the liability for the draft, and was compelled to pay it to the Commercial National. The Hamilton Bank endeavored to evade this liability by asserting that its course was in consonance with the established custom and usage of banks, which was well known to the Commercial Bank and the owner of the draft. The Supreme Court of the United States has passed upon the question raised by that contention in the following language: "The language of the indorsement is without ambiguity, and needs no explanation either by parol proof or by resort to usage. The plain meaning of it is that the acceptor of the draft is

to pay it to the indorsee for the use of the indorser. The indorsee is to receive it on account of the indorser. It does not purport to transfer the title of the paper or the ownership of the money received. Both these remain, by the reasonable and almost necessary meaning of the language, in the indorser. * * * If this be a sound view of the legal effect of the written indorsement, neither parol proof nor custom can be received to contradict it."

A recent case involving a somewhat different principle was that of the Freeman's National Bank v. National Tube Works Co. In this case a customer of the People's Bank placed a draft in its hands for collection, which was indorsed to it by a general indorsement without any restrictions whatever. This was forwarded by the People's Bank to the Penn Bank, and by it forwarded to the Freeman's National Bank. The People's Bank was indebted to the Freeman's National Bank, and the draft was collected and credited to that account, the latter bank endeavoring to hold that the general indorsement of the National Tube Works Company passed the title to the People's Bank, and that it was their property. But the court refused to become a party to this appropriation of private property to pay corporate debts, and held that when the Freeman's Bank received the draft under an indorsement for collection, it took it subject to that restric-

HICKORY PULLEYS FOR ROPE TRANSMISSION.

With the extensive pulley business of the Menasha Wood Split Pulley Company of Menasha, Wis., the manufacture of rope transmission pulleys has become an immense industry. It seems that the rims of these pulleys being made so that the grain of the wood follows around the pulley, leaves the surface and groove very smooth, and prevents abrasion or wear of the rope, which is a very desirable thing in transmitting power by rope. These people also have men out putting up this kind of drive, and take the contract to put up the work complete ready to run. We show illustrations of these pulleys in this issue.

CATS OF THE GRAIN MARKET.

A funny story has recently been made public respecting the cats which inhabited the recently destroyed Grain Market of Paris. Several years ago the market in question became infested with rats to an unprecedented degree. They increased and multiplied so rapidly that their depredations speedily assumed alarming proportions. They not only devoured huge quantities of grain, but by gnawing holes in the sacks they caused a great deal to be lost and spoiled. The guardians of the colossal granary were at their wits' ends. They tried traps, but the rats were too well fed even to look at them.

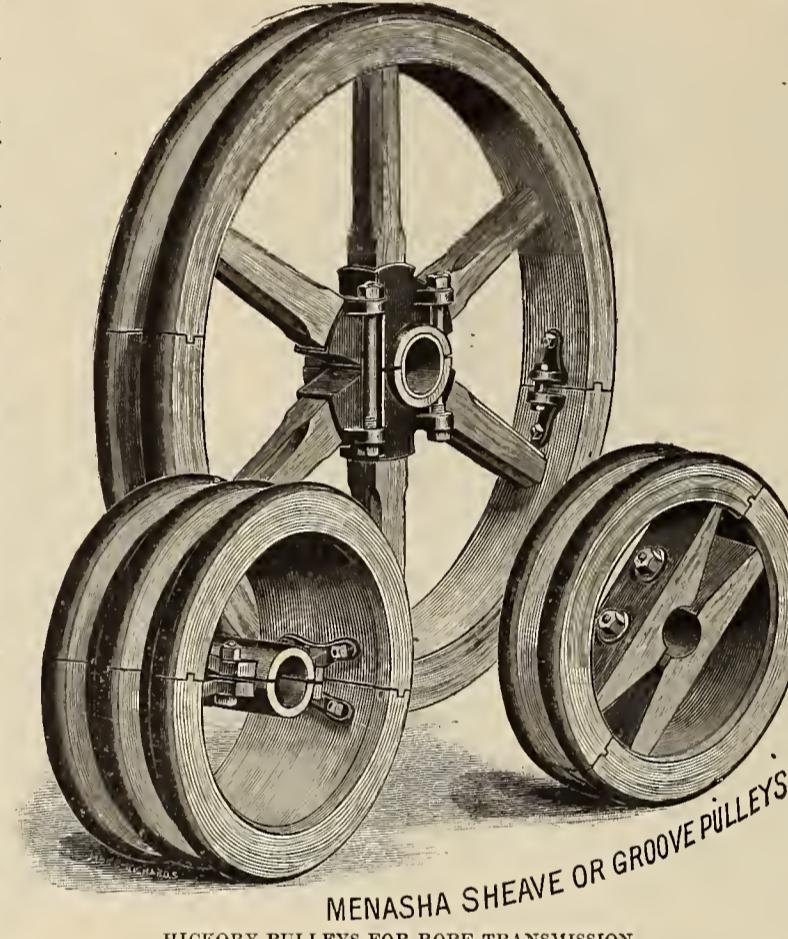
So they called in the aid of the natural foes of rats and mice, and established a few pairs of cats as the police of the place. These new auxiliaries waged war upon the rats with such energy that the nuisance was not merely abated but was totally removed. But then the cats having exterminated the rats, the question arose as to how the cats themselves were to be gotten rid of. That problem proved to be even more difficult of solution than the original one. The cats reinforced their position by bringing into the world huge families of kittens, and if they did not eat the grain, they soiled and destroyed large quantities of it, scratched holes in the sacks, and misconducted themselves generally, so a resolution was passed that they must be destroyed—but how?

The granary keepers decided upon starving the enemy out; but all the old women in the neighborhood, horrified at the cruelty of the process, banded themselves together and supplied the luckless pussies with abundance of food. Then a lot of bulldogs were introduced into the granary, but the cats quietly sailed up to the summit of the piles of sacks and from the height of their fortifications calmly contemplated the foe. Poison was next thought of, and some virulent preparation of the kind was procured from the Municipal Laboratory and was introduced into scraps of meat, which were afterward scattered over the granary floor.

The cats, however, were far too wise to be tempted by such pernicious dainties; they preferred the wholesome porridge prepared for them by the friends outside, and it was the unfortunate bulldogs that ate up the poisoned meat, and perished in consequence. Thus baffled at every turn, the granary-keepers abandoned the contest in despair, and only the demolition of the old Grain Market brought about the dispersion of the offenders, which, since then, have led a precarious life on the rooftops in the neighborhood. The attention of the Society for the Prevention of Cruelty to Animals has at last been called to the condition of these poor cats, who have been treated as the English sparrows were.

NEW SEEDING SCHEME.

Out in Northwestern Kansas, farmers are trying a new scheme in planting wheat. Their plan is to put in the wheat without breaking the soil. The prairies in that section are covered with buffalo grass, and it never grows very high, so if the wheat crop ever matures it can be reaped easily. The shade of the wheat will also kill the grass, so it is claimed by the farmers, so that the second crop will be more easily put in than the first. One farmer who tried this scheme on a very small scale last fall reaped a good crop this year, and this fall he intended planting four sections of prairie with wheat in this manner. Aside from this there are other farmers who are trying the same scheme.



HICKORY PULLEYS FOR ROPE TRANSMISSION.

tion, and was bound by it. The fact that the indorsement from the owner to the first bank was unrestricted was a question between the owner and that bank, and the subsequent chain of indorsement being entirely for collection, the last bank simply held it as agent of the indorser next preceding.

These cases seem to establish pretty thoroughly the doctrine that a business man is safe in transmitting his collections through banks. If collections forwarded in the ordinary course of business could be used by the banks for the payment of their *inter alia* debts, one of the greatest agencies of commercial convenience would be rendered practically useless. There seems to be a disposition on the part of the courts to sustain against all subterfuge and legal trickery the right of the owners of drafts to the proceeds of them.

Advices from Topeka, Kan., dated Jan. 5 state that reports have been received by Secretary Mohler of the agricultural department, from correspondents in nearly every county in Kansas, showing that the winter wheat crop is in a fine condition. The heavy snow of the past week came just in the right time, and Secretary Mohler believes it has improved the condition of the crop 20 per cent. In Salina, Reno, McPherson and other great wheat counties the average is larger than ever before. In the western part of the state there was danger of damage by the Hessian fly, but Secretary Mohler says that the excessive precipitation of moisture in the past week saves the crop from the ravages of the fly.

Queries and Replies.

Questions and answers are inserted under this head free of charge, and all are invited to avail themselves of this column.

No. 39. Straw Grinding Machine.—Will some party manufacturing or having a machine that will grind thoroughly straw, hay, and like substances when dry, please send a descriptive circular of the same to—Box 400, Summit, Union Co., N. J.

No. 40. Japanese Buckwheat.—In reply to Query No. 38 in the December issue of the AMERICAN ELEVATOR AND GRAIN TRADE, will say, if "Hawkeye" will write us we will supply him with genuine Japanese buckwheat for seed.—STUDABAKER, SALE & Co., Bluffton, Ind.

No. 41. Liability for Stored Wheat.—The burning of my elevator some time ago, together with several thousand bushels of grain, has brought on a controversy which may end in a lawsuit. I did not operate my elevator as a public elevator, but did accept for storage the grain of a few friends at a low rate of storage. I had my elevator and my own grain insured for about one-half their value. The grain in store was not insured. The cause of the fire is not known, but it is supposed to have been started by a spark from a passing engine. Two owners of stored grain claim that I should pay them the market price of the grain destroyed, as I was the paid bailee of the grain. Another claims that he is entitled to a part of the insurance on the grain which was paid to me by the insurance company. He owned about one-seventh of the grain in store, and claims that therefore he is entitled to nearly one-seventh of the insurance. The owners of the stored grain did not pay a cent storage. It was my practice to collect when grain was taken out of store, and as the grain was burned, I have not asked for any pay for storing it. I will consider it a great favor if elevator men who have, or know of those who have, been placed in the same or a similar position, will give me the benefit of their experience.—ILLINOIS SHIPPER.

SHORT SELLERS NOT TO BLAME.

BY R. JAMES ABERNATHY.

Alas for the poor, oppressed, down-trodden, long-suffering and forbearing American farmer! Not only are the stories of his wrongs heralded to the world in tones of thunder by organized bands of these same virtuous and forbearing farmers, and by political agitators desirous of securing the farmers' votes; but now we have, from various sources, from men who seem to have no political aspirations, nothing in common with farming interests, a mournful repetition of the cry of wrong that would make angels weep and devils hang their heads in shame.

I can readily understand how and why the average farmer raises the hue and cry that he does, because I am well acquainted with him and have studied his nature pretty thoroughly. I can also understand how the political intriguer can weep crocodile tears of anguish over the woes of the farmers, on one side of his face, while disdain and contempt are distinctly stamped upon every lineament of the other side; but I cannot understand the cause of such melancholy refrains as appeared in the last number of the AMERICAN ELEVATOR AND GRAIN TRADE.

Of course it was a paper read before a farmers' meeting, but I do not understand it to have been read by a farmer, and hence the mystification.

I am glad, however, that the writer of the paper found causes other than political; causes outside of the dominant economical theory of the government; for the deplorable condition of the rural classes of this country; and for that he deserves thanks at the hands of a very large portion of the American people who had become weary of the other monotonous song.

This latest authority says the degradation of the farming community is due to short selling. Why, he says that in the past few years, "This short selling has cost the farmers of the Northwest more than enough to pay the national debt." Just think of it, one billion dollars lost to the farmers of the Northwest alone! Now suppose we add the Southwest, the middle Pacific slope and all the other grain-producing sections, and there must have been three billions lost to the farmers of the country by the av-

aricious greed of the insatiable short seller. What a pity if true; but is it? It will take a fine process of calculation to demonstrate it. That is about as much as the farmers of the whole country have received for their entire wheat crop the past eight years.

The short seller is a bold, bad man; but the cornerer is the embodiment of virtue, because "no one attempts to run a corner until he is forced to in self defense." Now, if Benjamin Peters Hutchinson, Esq., ever read that sentence he certainly smiled "a smile that was childlike and bland," as his mind wandered back to his famous wheat corner of September, 1888.

An exceedingly virtuous and philanthropic lot of men are those cornerers. They force the 40,000,000 or more of non-producers of grain, of both high and low degree, mostly low and hard-working wage earners, to pay fictitious and exorbitant prices for bread, for the benefit of the 20,000,000 grain producers and a few legitimate grain dealers. Then, if a short seller steps in and tries to even the deal between the producers and consumers, he is denounced as a man fit only to abide in the wilds of "Darkest Africa." What right have the 43,000,000 of people outside of the farming classes that the farming classes of 20,000,000 are bound to respect? If there are any, they are not made known in the declaration of principles formulated by Farmers' Alliances, etc.

I do not believe the writer of that article understands much about corners, because he says, "It is simply an attempt to sustain the value of products against those who would depreciate it." Again do I fancy I see Mr. Hutchinson smile. Sustain is a good word, but boom, whoop 'em up, would be better. In the late corner prices of wheat would have been well sustained at about \$1 per bushel, and afforded holders a good profit; but the old gentleman made the miserable short sellers, some of them pay twice that. Oh! yes, a corner is run for the purpose of *sustaining* prices, and a successful one does it with a vengeance.

He says, "A man bought 1,000,000 bushels of grain to carry as an investment. He was forced to buy 18,000,000 of wind to sustain the value of the 1,000,000 bushels of actual grain." That was indeed a most fortunate speculator; owning 18,000,000 bushels of wind and only, obliged to take care of 1,000,000 bushels of cash stuff. What a whirlwind there would be when settling day came around! Why, that is just the way corners are run. No man or set of men ever attempt to corner cash stuff—actual grain. It is the wind that is cornered, and unless sufficient wind is bought, no corner is attempted. Let Mr. Hutchinson secure 18,000,000 bushels of wheat wind from reliable parties for May delivery, and I am most sure he will pick up the 6,000,000 bushels of actual wheat and take care of it. But unless the necessary wind can be secured, neither he nor any one else wants the cash stuff, for the present at least. If the short sellers are strangled, how are those people to secure the wind with which to run corners and thus *sustain* prices?

But here is the master stroke in that ably written paper: "Farmers talk of overproduction. Limit production, and you will increase values, etc. I want you to put this thing in your pipe and smoke it. The world has been producing grain for thousands of years, and has never yet accumulated a surplus that would give three months' supply. There is no need yet of limiting production."

I will give him a chance for a smoke by adding that the world has never yet produced grain enough in a single year to feed it nine months, provided all the people were as substantial consumers of bread, beef and pork as the American and English people are; but what has that to do with the question of overproduction? What has either proposition to do with it? We measure production by requirements. If the production much exceeds the requirements, then it is evidence of overproduction.

Whenever this country carries over a large stock of unsold wheat, for instance, it means not only an overproduction for this country but for the entire world, and its effect on the world's value of wheat is far more disastrous than it would be were it evenly distributed throughout the world, for then it might not be noticed or felt.

We may have a floor of a warehouse stored with all the wheat it is capable of carrying with absolute safety; but having a few hundred bushels more to care for, we conclude to risk it with the other, and it would be safe enough to do so if we would carefully distribute it over all the floor, as in that way the whole load could be sustained without disaster. But instead we lift a hatch and carelessly dump the whole load in the center of the floor, and

before we can think, crash! and the whole load of wheat goes madly tearing down to the bottom of the building. A great fall in wheat! Can you not see how it is?

The overproduction in our country, which is the greatest grain-producing country in the world, is the incubus, the great extra weight in one place, that sends the markets of the world down with a crash, just as the extra weight in the middle of the storeroom wrecked the whole and sent it all down to the bottom. Now, if we could distribute our surplus all over the world in a thin layer, so to speak, it would not be much felt and values would be comparatively safe, just as the floor of the wareroom would be comparatively safe if we would distribute the wheat instead of dumping it all in one place.

The man who, in considering the question of overproduction of grain, includes the world in his calculation, gives evidence of a lack of knowledge of the situation, because the school child knows that an accumulation at any one part is more dangerous, if any danger is apprehended, than in a general distribution. That has been the condition of the country for many years. We have had 41,000,000 bushels of wheat in the visible supply at the end of the crop year. Who wanted it? There was no demand for it in any part of the world. But there it was, in plain view of the entire commercial world—a dead, crushing weight that was squeezing the life out of values in every part of the world. Did it decrease and relieve the pressure? No, it increased, and at the end of six months reached the large total of nearly 63,000,000 bushels.

Did anybody want it? Of course not, there was no place for it anywhere. Who did it? Why, the oppressed farmers; they exerted themselves to grow extra large crops, and then forced it on the market with undue haste, and so furnished the short sellers and bears, not only of the Chicago Board of Trade but the world over, with a huge cudgel with which to batter out their own brains; or in other words, to pound down wheat values, and then they and their friends will whine about the short sellers. Bah! They remind me of a spoiled and bad child, which by its own mischievous pranks gets hurt, and then runs bellowing to its mamma and claims that its injury was the fault of its playmates, and demands that they be punished for it, just as the farmers are now demanding state and national punishment for almost everything and everybody but their own innocent and virtuous selves.

An accumulation of 25,000,000 bushels of wheat in this country at the end of the crop year means that there is just that much more wheat than the world requires, and it never will be required if the new crop is as good as the last, and future crops are full. The only hope for it is in a future short crop. Who, then, is going to buy it on that hope, except at ruinous prices? No living man or set of men. They can find better use for their money. That, unfortunately, has been about our condition for the last eight years.

The present year promised a relief. The crop was known to be short, and through the influence of Farmers' Alliances, etc., the farmers were going to hold their wheat or a part of it, at least, and so not load the markets down. Have they done it? The figures will show that more wheat has moved so far this year than last year, in proportion to the crop. And as a result there is now 25,000,000 bushels in the visible. Who has the nerve to pick up that quantity of cash wheat with the view of carrying it, in the present condition of financial affairs throughout the world? The distinguished writer of that paper would not do it if he had the money. No man will do it; no set of men will do it at the present time. Later, when stocks begin to rapidly decrease, as they surely will, the cash stuff will be taken care of, the short sellers corralled and prices advanced. Then look out for another howl, in which the farmers, political demagogues and all other cranks and demagogues will join; a howl against speculators in general and short sellers in particular, for keeping prices down until the farmers had sold all their wheat and then advanced prices; when all the time it is the plain fault of the farmers themselves in unnecessarily forcing their wheat on a tired market in the face of adverse monetary conditions.

But again I say Bah! It makes one weary to think about it, much less to listen to it. The American farmers are being reduced to babyhood again, and expect the government breast to shoot out myriads of tits so that each one can suck at will. I mean the helpless agitators, of course, and not the straight up and down, manly ones, of which there are very many.

CAUSE OF SHORT WEIGHTS.

BY OBSERVER.

As nearly all of the large elevators throughout the country have adopted one or another of the recent improvements in scales, which enable them thereby to obtain greater accuracy in weights, a retrospection of the business when correct weights were simply an hypothesis may be interesting if not instructive. During an experience of nearly twenty years in the elevator business, and in a capacity which brought me into close business relations with a score or more of weighmen at different times, I never had cause for the least suspicion of any one of them being dishonest, either on his own account or for his employer—short shippers to the contrary notwithstanding. However, I believe they were all, without exception, open to censure in one particular, which, so far as the shipper's interests were concerned, was liable to be as disastrous as downright dishonesty.

This one particular was culpable carelessness in weighing and recording their weights. However often they were instructed to take time to make a close balance and to check and recheck their entries of weights, they persisted in the quickest way of doing the work, instead of the surest way. The phraseology of my explanatory letters to short shippers, in which all the details of our "method" were carefully mentioned, together with assurances of the accuracy of our weighmen, their long years of experience, etc., etc., is still a burning brand on my conscience. "To the best of my knowledge and belief," in the oath to the affidavits which I was obliged to make now and then, was the saving clause. In point of fact, one who had never seen the inside of a grain elevator might have made affidavit, oath and all, as well as myself, because I knew no more about the true inwardness of the case than the man in the moon. What I did know was, that our men were making errors almost every day in busy season in recording car numbers and initials; that though we had a method of checking the weights (*i. e.*, checking back), our most experienced men failed to do it when they were not watched. In fact, they were much more careful in recording car numbers than they were in recording weights, *because errors in car numbers made them trouble*. But of course I was not expected to mention these things in my affidavits or elsewhere. I had seen, time and again, our infallible men weigh a car of grain, and, not having their tally book handy, carry these important figures (to the shipper) in their heads from one end of the elevator to the other, and in more than one instance have seen them stop to answer a question or give a direction. But this was not according to our method, and would also have been quite out of place in an affidavit.

They always made a great show of checking when they were watched, but so far as they were personally concerned, their unlimited confidence in themselves made this "extra work" entirely unnecessary. And is it to be wondered at when we consider the fact that however often their figures were brought into question, it was very seldom indeed that the evidence brought against them was more trustworthy than the weighman's claim for his own figures? On this account we were often placed in the dilemma of the paterfamilias, who knows absolutely that either one or the other of his hopefules is telling a bare-faced lie, but is powerless to determine from the evidence in the case which one should receive the dusting.

The weighman's position was therefore impregnable. No amount of evidence on the shipper's side could weaken his position. Even when this evidence was strong enough to compel the management to settle, the weighman remained firm as a rock. And this was, of course, the only thing he could do. To make an admission once that he had probably made an error, would have opened up the way to other admissions. No regular weighman, however obtuse in matters generally, has failed to recognize the strength of his position when he stands up for his figures. And I maintain that this very point is the key to the biggest part of the trouble of short weights.

I speak from practical observation and experience, and hope to be able to prove this statement by actual figures. A loophole at the exact spot where, above all others, there should be no means of escape! And, paradoxical as it seems, no one has been to blame! The weighman himself had no means of knowing that his figures were wrong. Everybody in the dark! Not an instance that our manager would not have been mighty glad to make good a shortage if he could only have had reasonable evi-

dence that the fault was ours, and that we really had so and so much more of the shipper's wheat in our bins than we had given him credit for. When the accountant's figures become distorted or questioned, he checks back. There is a point in his system from which he can prove his accounts. With the weighman, before recent improvements in scales, the only entry of figures liable to be disputed was precisely the figures for which no one could furnish proof. That these figures have been so often the bone of contention is therefore not at all remarkable.

As I have implied above, sundry instances occurred now and then which convinced me that our shippers were suffering severe losses. For example, we once had a claim for a shortage of about 10,000 pounds. Affidavits galore came with it. As usual, we examined our records with the best of intentions and with the usual result. Nothing was wrong. Moreover, our weighman was positive he could never make a mistake of 10,000 pounds. We sent the parties our affidavit. Not a month afterward we received a car from a regular shipper, whom I knew to be a close and careful weigher and whose cars were always billed at actual weight. This car was billed at 26,230 pounds. When our weighman's weights were received the same wheat weighed 36,190, a difference of 10,000 lacking 40 pounds, which amount was not an unusual difference. The weighman was fetched and the case opened up to him. Same old story; no appeal. However, after putting two and two together, we concluded that our man had made an error. We therefore returned 26,190. From the fact that the atmosphere continued serene and of normal hue, we were convinced that our man had made an error of 10,000 pounds. Subsequently we learned something of this shipper's way of loading which confirmed us in the belief that our man had made the error, because with the shipper's scales no such difference could have occurred.

Many other similar instances led us to believe that most of the trouble about short weights was really due to errors in making entries, and this theory was fully substantiated when, two or three years later, our scales were supplied with a patent device by which errors of this kind could be detected. During the past ten years nearly as many patents have been issued for automatic scales and weighing devices as for car couplers—which is pretty good evidence that many people all over this great country of ours have entertained the same notions that we have about the cause of short weights.

I don't claim that this defect in our system—or rather lack of system—is the only cause. But our experience with the check device makes it clear that it is certainly the principal cause. More than this, it furnished us with unquestionable proof of shippers' errors, and enabled us by our own experience to know just how these errors were made. For example, we received from Messrs. Blank & Co., during two seasons, 176 cars of wheat. Aside from 11 cars on which errors occurred, 78 cars overran, with an average of 58 pounds per car; 72 cars fell short, with an average of 75 pounds per car, and 15 cars weighed out even. Following are figures on some of the cars on which errors occurred:

Blank & Co.'s Net.	Our Net.	Difference.	Error.
30,000	30,990	990	1,000
30,000	29,560	440	500
30,000	32,820	2,820	3,000
30,000	33,200	2,800	3,000
30,950	30,370	580	500
31,100	32,160	1,060	1,000
32,540	29,600	2,940	3,000

This last car brought in Mr. Blank on a visit. But after being entertained by an explanation of our new system, he admitted that they suspected, when they received our weights on this car, that their man had tallied one 50-bushel hopperful too many, but thought he would call in and see about it anyhow. Probabilities are that if he had not found us "prepared for him," we would have had another claim with affidavits. This was a good opportunity for him to say something about the other two cars, which overran 3,000 pounds each, but he neglected it entirely. Of course it was as plain to our understanding as it was to his, that if his man could tally one hopperful too many, he could also tally one too little. But, it may be asked, how about the differences of 1,000 and 500 pounds. Well, "it was just like this." These shippers shipped from two elevators. In one they use a 50-bushel hopper scale, in the other a railroad track scale with 500-pound notches on main beam. With the latter their weighman had made errors in reading his

figures—just as our own men were detected in doing almost every day.

In my next paper I intend to give some interesting tables of figures from actual experience, in comparison with some other figures concerning which I have only circumstantial evidence, as it were; and in my third paper I hope to make it clear that the method of weighing grain and other valuable commodities, without some auxiliary system or device for proving the records, is reckless and unreliable, and, in comparison with the complex machinery of accounts in other departments of commercial exchange, is, to put it mildly, primitive in the last degree.

DULUTH'S GRAIN TRADE.

The grain trade of Duluth may, to a considerable extent, be said to constitute one of the most important barometers of commerce in the city. The developments referred to elsewhere demonstrate very conclusively that it is not to hold the exclusive prominence that has been the case hitherto. Grain and shipment of same is the foundation of modern Duluth. In 1886 the crop shipped in here aggregated 40,370,665 bushels. For many and various reasons, there has been a falling off in this, partially owing to drouth, which has changed many grain growing districts into cattle growing. Secondly, this particular season there has been an extraordinary draft on the spring wheat region on the part of the winter wheat producing sections. There has also been deflected from it temporarily a large amount of grain from the Canadian Northwest by the erection of elevators at Port Arthur. However, this last change in the route of Northwestern grain is liable to be largely overcome by the construction before another twelve months of an air line railroad between the deep waters at the head of the lakes and the center of the Canadian wheat producing region at Winnipeg.

The strategical importance of this important line cannot be over-estimated, and the effect upon commerce in general and the grain trade in particular, will be very great. The estimate of the Manitoba crop of this season, as covered by official bulletin, gives an average yield per acre of twenty bushels; the total crop is put down to 14,665,769 bushels. These are very close figures, and in all probability cover only the Red River region of Manitoba proper. The Saskatchewan Valley will probably bring this estimate up close to sixteen millions. The total crop of the Red River Valley region of the United States on either side of the Red River can be put down safely at 40,000,000 bushels, thus giving us about 55,000,000 bushels of wheat, which inevitably will find its outlet at this point. This is simply a matter of commercial necessity when undiverted by artificial causes. This particular region referred to is as yet only on the threshold of its development, and it is perfectly safe to say that within ten years the population, as well as the product, will have more than doubled. Thus from the narrowest confines of Duluth's grain territory we must estimate a future crop of not far from 100,000,000. To this must be added the development, largely, to grain fields of about 1,000,000 acres in the most northern portion of the state, in the tracts which will be opened by the Red Lake Reservation and the settlements of the Rainy River regions adjacent. The wealth of that country is but little understood, even by the majority of Minnesota's own people, but the time is rapidly coming when the whole area up there will take its place as among the most commercially important regions of the entire Northwest. As regards the agricultural wealth that is undeveloped, it will naturally take the form that is always the case in the Northwest, that of spring wheat crops.

Minnesota, undoubtedly, has an extraordinary large area of undeveloped wheat land even south of the forty-seventh parallel north. It seems reasonable to assume that if the west half of the Dakotas can only reach a grain development by artificial means, that is to say, by irrigation, then a large number of the settlers who have attempted to raise grain beyond the 100th meridian in the Dakotas will undoubtedly turn eastward where no artificial means are necessary for the production of first-class grain, and a great many of these settlers will find that Northern Minnesota is among the richest virgin fields yet to be had for the production of spring wheat, the climate and soil alike being highly adapted to it.

The agricultural resources of the Rainy River region are not a myth, but a reality, for many Minnesotans consider that portion of her territory a terra incognita. Our

thrifty neighbors over on the Canadian border of the "Rainy" have thoroughly demonstrated along its entire length of a hundred miles the possibilities latent in that region. Railroad construction heading from Duluth and tending in that direction will not be much longer delayed, and Duluth will command a vast grain section, the diversion of which will be impossible. The total estimate of wheat raised in the United States at present approximates 450,000,000 bushels. Of these Minnesota and Dakota raised 90,000,000, or one-fifth of the total. Adding the Manitoba crop we have already 105,000,000 bushels of wheat. This crop, as already stated, is destined to a very considerable increase, particularly from the growth of population, and chiefly from the fact that it is a well established dictum that spring wheat cannot be grown to any advantage south of the Central Minnesota boundary line.

The permanent spring wheat belt of the Northwest lies north and west of the forty-sixth parallel north. As population grows it is evident, too, that, immense as is the territory in which this grain can be produced—it reaching inland some 1,500 miles Northwest from the head of the lakes into the heart of the Saskatchewan, and in time perhaps even the Peace River Valley regions—nevertheless the call for this class of wheat is constantly on the increase, and will tend toward a maximum price, owing to the restricted territory comparatively speaking, in which No. 1 hard can be produced. The value of this grain is ever advancing by the extended use of the same. One of the remarkable features of this whole business is the fact that the shipment of wheat manufactured into flour is constantly on the increase. This increase of flour export over grain proper is especially noticeable in reference to spring wheat product, and when it is borne in mind that some 1,700 carloads of flour passed from the Duluth docks to be shipped by steamship from here to Eastern markets and Europe the possibilities of the flour shipment from Duluth proper is realized. The grain trade of Duluth is destined to steady and continuous increase, but the possibilities of her flour trade are even greater. That this is realized, by a few improvements referred to elsewhere, very accurately indicates that Duluth is destined to take rank as one of the greatest and one of the most prominent spring wheat and spring wheat flour markets in the world. There can be no question. Below will be found statistics covering grain receipts for the past year:

	Bushels.	Bushels.	
1880.....	3,021,287	1886.....	40,307,665
1883.....	9,234,711	1887.....	37,114,321
1884.....	25,274,212	1888.....	21,476,217
1885.....	28,234,450	1889.....	17,313,081

1890.	Receipts.	Shipments.
January.....	330,467	76,024
February.....	369,321	36,248
March.....	956,631	44,946
April.....	1,013,789	1,112,774
May.....	507,018	2,205,578
June.....	505,793	1,418,141
July.....	686,430	1,254,132
August.....	328,788	1,245,784
September.....	2,320,613	1,165,597
October.....	2,729,149	2,161,069
November.....	3,622,721	3,311,332
December.....	2,000,000	.....

The aggregate elevator capacity of the Duluth elevators is 20,950,000 bushels. The combined capacity of the five elevators of the Union Elevator Company is 5,900,000 bushels; the Lake Superior Company has six elevators with a combined capacity of 7,750,000 bushels; the Great Northern Company two, with a total capacity of 3,300,000 bushels, and the Duluth Elevator Company three, with a total capacity of 5,000,000 bushels. In increased capacity for the year we have 350,000 bushels by an elevator added to the Imperial Mill. The elevators belonging to the Great Northern and Duluth elevator systems are situated on the Wisconsin side of the bay in West Superior. They are counted, however, as belonging to the Duluth system, and for several conclusive reasons. The offices of these elevators are situated in Duluth. Every bushel of grain that goes into or comes out of them is inspected and its grade determined by Duluth inspectors, acting under the inspection laws of Minnesota. Their warehouse receipts are made regularly on the Duluth Board of Trade, and they are under heavy bonds to this Board of Trade, guaranteeing that their offices shall be established and shall be maintained in Duluth, and that their business shall be conducted strictly according to the laws of the State of Minnesota and the rules and usages of the Duluth Board of Trade. They are in all respects

Duluth elevators, except the ground they stand on.—*Pioneer Press.*

GOVERNMENT CROP REPORT.

The January report of Statistician Dodge shows that the December condition of the growing wheat crop is returned at 98.4, and of rye 99. This is better than December returns for two years past. Along the Atlantic coast a slight depreciation is noticed as the result of excess of moisture in some localities, making plowing late and giving rather small growth before the advent of freezing weather. In the Ohio Valley the season was generally favorable for seeding and early growth and the plant entered winter quarters in promising condition. Some damage was done by the Hessian fly, especially in early-sown fields. The condition in Missouri and Kansas was variable, local injury from drought and fly combining to reduce state averages.

The estimate of the Agricultural Department of the grain crops for 1890 is as follows:

WHEAT.

States.	Acre.	Bushels.	Value.
Maine.....	40,213	542,000	\$ 624,307
New Hampshire.....	9,155	140,000	164,083
Vermont.....	19,478	335,000	371,874
Connecticut.....	1,876	30,000	33,018
New York.....	610,540	9,288,000	9,287,830
New Jersey.....	138,833	1,168,000	1,679,799
Pennsylvania.....	1,337,437	16,049,000	15,888,752
Delaware.....	94,790	919,000	882,684
Maryland.....	535,143	6,208,000	5,711,046
Virginia.....	801,956	5,614,000	5,389,144
North Carolina.....	717,228	3,156,000	3,155,803
South Carolina.....	178,609	750,000	757,666
Georgia.....	344,159	1,411,000	1,552,157
Alabama.....	293,049	1,319,000	1,437,406
Mississippi.....	60,750	286,000	314,078
Texas.....	510,711	3,575,000	3,306,228
Arkansas.....	221,848	1,575,000	1,543,619
Tennessee.....	1,175,052	7,873,000	7,636,663
West Virginia.....	302,086	2,326,000	2,209,759
Kentucky.....	943,518	9,152,000	8,419,955
Ohio.....	2,398,741	29,984,000	27,285,679
Michigan.....	1,501,561	20,271,000	18,243,967
Indiana.....	2,493,605	27,928,000	24,576,971
Illinois.....	1,853,173	18,161,000	15,800,153
Wisconsin.....	1,073,475	13,096,000	10,870,008
Minnesota.....	3,143,917	38,356,000	31,068,187
Iowa.....	1,685,080	19,041,000	15,223,123
Missouri.....	1,603,459	17,638,000	14,639,581
Kansas.....	2,058,000	28,195,000	21,709,842
Nebraska.....	1,418,059	15,315,000	11,639,428
California.....	2,426,730	29,121,000	22,131,778
Oregon.....	887,250	12,865,000	9,648,844
Nevada.....	18,489	250,000	214,658
Colorado.....	96,030	1,877,000	1,439,010
Arizona.....	25,930	311,000	280,044
The Dakotas.....	4,209,482	40,411,000	28,287,719
Idaho.....	83,056	1,370,000	1,068,931
Montana.....	87,550	1,488,000	1,190,680
New Mexico.....	9,610	1,105,000	1,105,170
Utah.....	130,251	2,279,000	1,177,927
Washington.....	436,275	8,071,000	6,134,027
Total.....	36,087,154	399,262,000	\$334,773,678

CORN.

States.	Acre.	Bushels.	Value.
Maine.....	27,855	1,008,000	\$ 746,180
New Hampshire.....	34,487	1,259,000	906,319
Vermont.....	54,893	1,839,000	1,324,020
Massachusetts.....	54,134	1,868,000	1,307,336
Rhode Island.....	12,307	402,000	289,756
Connecticut.....	56,407	2,014,000	1,409,611
New York.....	642,896	17,101,000	11,115,672
New Jersey.....	357,342	11,185,000	6,934,579
Pennsylvania.....	1,383,377	38,043,000	22,825,721
Delaware.....	223,136	4,128,000	2,064,008
Maryland.....	725,907	16,333,000	8,166,454
Virginia.....	2,109,853	36,922,000	20,307,335
North Carolina.....	2,726,586	36,264,000	19,944,977
South Carolina.....	1,576,230	16,078,000	11,254,282
Georgia.....	2,981,486	31,306,000	21,600,896
Florida.....	491,428	4,570,000	3,427,710
Alabama.....	2,489,226	25,390,000	17,625,271
Mississippi.....	1,951,651	24,396,000	17,076,947
Louisiana.....	1,061,169	16,979,000	11,885,093
Texas.....	4,116,281	63,802,000	45,937,696
Arkansas.....	2,002,573	33,443,000	21,737,953
Tennessee.....	3,600,657	67,692,000	35,206,023
West Virginia.....	674,733	13,435,000	8,060,796
Kentucky.....	2,816,155	63,645,000	31,186,100
Ohio.....	2,827,277	65,876,000	33,596,533
Michigan.....	977,185	26,580,000	14,618,733
Indiana.....	3,604,252	79,025,000	41,841,761
Illinois.....	7,154,424	187,446,000	80,601,741
Wisconsin.....	1,102,022	33,661,000	14,877,297
Minnesota.....	768,449	21,286,000	8,940,136
Iowa.....	8,771,299	232,439,000	95,300,164
Missouri.....	6,796,318	175,345,000	77,151,802
Kansas.....	3,542,891	55,269,000	28,187,241
Nebraska.....	3,072,800	55,310,000	26,548,992
California.....	159,781	4,396,000	2,857,694
Oregon.....	8,011	173,000	114,205
Colorado.....	42,133	767,000	483,097
The Dakotas.....	884,593	12,630,000	6,015,233
New Mexico.....	56,289	1,126,000	821,819
Utah.....	35,175	739,000	502,299
Total.....	71,970,763	1,485,970,000	\$754,432,451

OATS.

States.	Acre.	Bushels.	Value.
Maine.....	100,607	2,847,000	\$ 1,

THE AMERICAN ELEVATOR AND GRAIN TRADE.

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A. J. MITCHELL, - - - Business Manager.
HARLEY B. MITCHELL, - - - Editor.

ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., JANUARY 15, 1891.

THEY WANT JUSTICE.

The executive committee of the Illinois Grain Merchants' Protective Society held a meeting at Springfield Dec. 20, to discuss certain abuses from which grain merchants suffer. The principal thing receiving the committee's attention was the landlord lien law, which makes grain buyers liable for the landlord's lien on grain bought of tenants. This is admitted to be very unjust, and the society will make an effort to secure the amendment of the law so that liens will not hold on grain in the hands of innocent purchasers without notice from the landlord previous to purchase.

Several years ago the Appellate Court of the Second District decided that a landlord's lien did not apply to grain in the hands of innocent purchasers without notice from the landlord, but since then the same court of the Third District has decided that the law was intended to protect non-resident landlords, and that the lien was absolute and would follow the grain anywhere. With such diverse decisions before him the grain buyer who has been imposed upon and sold grain upon which a landlord holds a lien, is more likely to pay the lien than to stand the expense, worry and trouble of a lawsuit, the outcome of which will probably be against him. It is utterly impossible for the Illinois grain merchant at present to know the financial standing of all the farmers who sell him grain, while it would be a very easy matter for the landlord to give proper notice of the liens he holds against grain. The situation in several other states is about the same, and dealers will do well to organize and secure the enactment of laws that will give them just protection.

A protest was also made at this meeting against the intended advance in corn rates to the seaboard. Many country buyers had contracted to deliver corn at the seaboard, and the advance of five cents, which it was announced would go into effect Dec. 29, would have caused some a heavy loss.

Some attention was also given to the loss suffered by shippers "by stealage, leakage and shrinkage," and an effort will be made to hold

the railroad companies responsible for losses so occurring. Shippers should demand a clean bill of lading, and then sue the railroad company for grain not delivered.

COURTING FAILURE.

Shortages in grain shipments is one of the subjects which is receiving the merited attention of Manitoba grain shippers. If they succeed in preventing large shortages, occurring frequently as they do at present in this country, American shippers will give a large sum for the privilege of adopting the method in this country. A number of practical methods have been suggested for putting a stop to this abuse, but American grain shippers have been backward in doing anything to protect themselves.

In every issue we publish the names of a number of firms that have been trying to do a grain business, but have failed. The cause of the failure is seldom stated, but one of the most potent and common causes is the loss suffered by grain shippers on account of leaky cars and dockage at grain centers. To this loop-hole can be directly traced the cause of many failures, still, faster than the failures are recorded others press forward to do business in the same old reckless way. Refusing to profit by the experience of their fallen brothers, or to accept the warning of the financial wrecks which strew the path of every grain dealer, they press on.

Possibly they will succeed, but it is more probable that they will fail. Each and every shipper wants a clean bill of lading and the delivery of the full amount of grain put in the car. Not one desires his grain scattered along the line of the railroad to rot, or his shipment docked at the terminal elevator to allow for a future shrinkage which may never occur. Yet all meekly and peacefully put up with the imposition.

The loss in most cases is so small that few shippers feel justified in making an effort to secure justice. They do not think a small loss will "make or break" any one. If they will only keep an account of their loss by shortages they will find that in a month it amounts to considerable, and in a year it will be enough to double their loss from other causes. If saved, it would have offset other losses.

NEW YORK'S GRAIN TRADE.

According to figures sent out by the New York Produce Exchange, the grain trade of New York City is declining. The Toledo *Market Report* gives figures showing a decrease in the amount received both by railroad and canal at New York, but 1890 is compared with 1880 alone, which is an unfair comparison, for 1880 and 1881 are the best years in the history of the trade.

It is stated that during the first eleven months of 1880 New York received 137,735,889 bushels of grain, 65,885,708 bushels by rail and 71,850,181 bushels by canal, against a total of 90,514,406 bushels for the same period of 1890, of which 58,661,468 bushels were received by rail and 31,912,938 bushels by canal. This shows a decrease of over 47,000,000 bushels in the receipts of New York City, of which nearly 40,000,000 bushels was a falling off in the amount received by canal. The receipts by canal could not be the same as in 1880 for the very good reason that Buffalo has not received during any year since 1880 an amount of grain within 15,000,000 bushels of the amount received during that year, and twice, the amount received has been less than half the amount received in 1880.

A number of influences have contributed to a decline in the grain trade of these two cities, the strongest of which is the desire, common among shippers, to get their grain to its destination as cheaply and as quickly as possible and with as little handling as possible. New routes have been constructed to the seaboard and new distribution points have been established in the East, so that much of the grain that formerly went by the way of these cities now goes elsewhere. Newport News, Va., is becoming a competitor, and a larger quantity of grain is being taken direct to the New

England states by the Canadian and other roads.

By shipping grain by either of these two routes the shipper avoids many of the heavy charges levied upon grain at Buffalo and New York harbor. The charges at Buffalo on 110,000 bushels of grain amount to \$1,540; at New York \$1,622.50 in addition to the charges for wharfage and port facilities, making a total of over \$3,162.50 besides the charge for transportation. The charge at Newport News for transferring the same amount of grain from cars to ship is only \$550, a difference of \$2,612.50 in favor of Newport News.

The charges at New York have long been complained of as being too heavy and too numerous, and eventually grain elevators must be erected at some point in the harbor which will make it unnecessary to pay heavy charges for wharfage, lighterage, towing and numerous other things. The mixing and manipulation of the grades at New York is also detrimental to the city's grain trade. Unless changes are made at that port in the interest of Western shippers, New York's trade will continue to decline and drift to other seaboard cities.

GRAIN INSPECTION IN MICHIGAN.

Some of the farmers of Michigan, with the editor of the *Michigan Farmer* at their head, are crying for the moon. When they get it they will cry just as loud because it "has been forced upon them."

The editor of the *Michigan Farmer* claims that Michigan wheat stands lower in the world's grain markets than ever before and that the system of inspection of Michigan works a great injustice to farmers, and especially to those who produce the highest quality of wheat. He says that "a wholesale adulteration of wheat by unscrupulous dealers throughout the state has brought about this deplorable condition of affairs, and recommends the extension of the system of inspection that is in vogue in Detroit to all points in the interior at which wheat is marketed."

The farmers probably would like the grain buyers of the state to place the grain of each in a separate bin, clean it and ship it in a separate car, but if they were offered a price for their grain which would allow the buyer a fair recompense for such service they would raise a terrible howl. Very few, if any, country buyers in Michigan make a practice of mixing grades; they have not the machinery for doing it; but they do not occupy a dozen bins with as many wagon loads simply because each is a trifle different from the rest.

The present system of inspection is responsible for this "terrible state of affairs," yet to bring about a change acceptable to the farmers, this system must be extended to all wheat markets of the state. Such logic is charming. If any grain buyer was inclined to do a mixing business, the inspection of the grain by an official inspector before the farmer sold it would not in any way interfere with the buyer's mixing anything he desired with it. All country elevators are private, and no state has the power to declare them public. Neither can the state prevent the private warehouseman's mixing different cereals or different grades of the same grain any more than it can the farmer. The establishment of state inspection at all interior markets would only incur an extra expense to the farmers without benefiting any one save the inspectors.

Supposing the country grain buyer of Michigan had the machinery and did mix the different grades of grain purchased. Surely they would not go to the trouble and expense of mixing without expecting to receive some recompence. If it was to the advantage of the dealer to sell the grain just as received from the farmer, he would do so. It is to the buyer's interest to clean and handle the grain so that it will bring him in the most money. He knows it, and will always handle it to the best of his ability. It is to the interests of every farmer to sell his grain to that buyer who knows how to handle his grain to the

best advantage, for that buyer is the one who will secure and pay the best prices.

State control of the inspection of grain in Michigan might prove more satisfactory than the present inspection, which is controlled by the Detroit Board of Trade, but official inspection at every place in the state where grain is marketed would be an outrageous imposition, not upon the grain buyers, but upon the grain producers, who would pay for it.

COMBINED EFFORT

If grain shippers are so inclined they can secure a reduction of their loss by shrinkage at some of the elevators. Recently three country firms which do a large business and keep a close account of everything compared notes as to shortages in shipments sent to a certain grain center and found that the greatest shortages occurred at a certain elevator.

They immediately sent a letter signed by each firm to the superintendent of the elevator and informed him of the greater shortages occurring in the shipments unloaded at his elevator. They also informed him that unless there was a perceptible reduction in the amount of the shortages reported in the case of their shipments unloaded at his elevator they would make it a point to have their shipments weighed elsewhere. The desired decrease in shortages occurred and these three shippers have sworn to work together hereafter when they wish to accomplish anything of a similar nature. If the combined efforts of three shippers can accomplish so much, what can not be accomplished by the combined efforts of all the shippers of a district or state?

If country elevator men and grain dealers suffer injustice at the hands of the railroads, the terminal elevators, commission men, transient buyers or unfair competition they have no one to blame but themselves. By combined effort, organization or association they can easily protect themselves, and it is their first duty to do so.

THE CHICAGO BOARD OF TRADE.

By the re-election of President Baker the Chicago Board of Trade has indorsed his policy toward the bucket shops and the telegraph companies, so for another year war will be waged against the bucket shops and the telegraph companies will be forbidden space on the trading floor.

The report of the Board of Directors at the annual meeting of the Board showed that the war on the bucket shops had resulted in increased business on the Board. During the first three months of 1890 the Board collected and disseminated quotations and the Board of Trade Clearing House lost \$600, while during the last nine months no quotations were collected and the Clearing House accounts showed a gain of \$5,000. The total clearances for the year through the Clearing House amounted to \$56,627,157, an increase of \$31,164,076 over the preceding year.

The telegraph companies have tried in every way to bring about a return to the old way of collecting and disseminating quotations, rates have been advanced and poor service rendered. This the members will not long tolerate. A scheme is now on foot to connect the different produce exchanges by an independent telegraph line which will insure better and cheaper service and release dealers from the extortion of the telegraph companies.

The year was one of the most prosperous in the history of the Board and the annual assessment for the ensuing year has been reduced to \$65. The Board has nearly 2,000 members, and the value of memberships is much more than nine months ago.

At present it looks very much as though a large part of Chicago's grain trade will be transferred to South Chicago, and especially is the bulk of that shipped east by water more likely to go by way of South Chicago. The numerous swinging bridges are the source of great inconveniences and delay, and the river is so shallow that the larger boats cannot take a full cargo un-

til they get nearly out of it. The large factories in South Chicago have already taken advantage of lake navigation, and will receive a large per cent. of their supplies of iron and coal by that route in the future, so it is an advantageous point for elevators. Boats could be supplied with cargoes of grain without going out of their way. Parties have been negotiating for elevator sites in South Chicago, and it is stated on good authority that two elevators will be built near the entrance of the harbor in the near future. It is expected that others will spring up along the lake front near the Calumet River.

ADVANCE IN GRAIN RATES.

The right of the railroad companies to advance freight rates on grain products above those fixed by the Inter-State Commerce Commission will undoubtedly be tested in the near future. A general advance in freight rates on grain from the Missouri to the Atlantic seaboard was announced to take place the first of the year, but the shippers made such a vigorous protest that the advance was suspended, and it is said, although it has not been publicly announced, that the proposed advance will take effect to-day.

If the rate on corn and wheat from Missouri River points to Chicago is advanced, as proposed, Western shippers should appeal to the Inter-State Commerce Commission. Much of the grain still in their hands was bought at a figure which at the old freight rate they could ship at a profit, but the advance will prevent them selling out without sustaining a loss, unless there is a sufficient advance in the market to overcome the advance in freight.

The farmers of the West are also objecting to the advance, and where they have control of the state legislatures they will undoubtedly enact laws providing for the rigorous regulation of the railroads. The more extortionate the railroads are in the matter of grain freight rates the more vigorous regulations will the farmers provide.

The Inter-State Commerce Commission should provide regulations for the protection of grain shippers from loss on grain held by them when an advance in freight rates takes place. Should shippers have any grain on hand when notice of the advance is given, and desire to ship it at the old rate, it should be all carried at that rate providing the shipper then applies for a number of cars sufficient to transport it. The inability or the opposition of the railroad company to supply the shipper with the necessary cars within the ten days' notice required before putting an advance into effect, should not be permitted to cause the shipper a loss.

LEGISLATION NEEDED.

While the different state legislatures are in session it would be a wise move on the part of the elevator men and grain dealers to make an effort, at least, to secure legislation that will increase the possibility of their securing justice in all their business transactions, and a special effort should be made to secure legislation on the more crying abuses of the trade.

Among the prominent abuses which require attention is the demurrage charge, a charge made by the stronger of two contracting parties for a delay of its property, but a charge which the stronger party does not allow the weaker one to collect when its property is delayed.

Contracts between carrier and shipper should not contain an element of indefiniteness as at present. Grain shippers should be given clean bills of lading and the full amount of grain delivered or the shortage paid for at the price for which the rest of the grain was sold.

Cars should be distributed among stations and shippers in proportion to their wants and not as is unjustly provided by the laws of some states, according to the number of applicants.

Country elevator men should receive some recompense for constructing and maintaining warehouses which benefit the farmers and the railroad companies. The railroad companies should either be allowed to give them a lower

rate than the track shippers or else pay them a small commission on each bushel of grain loaded into the company's cars from the elevator.

Railroad companies should be compelled to announce thirty days in advance of the first of each year the maximum freight rates for the following year and should be prohibited to charge a higher rate during that year. This would make a definite quantity of what is now an indefinite item of expense in the business of a grain shipper and prevent their suffering loss by an advance in rates, as at present.

Other reforms are needed and can be secured if dealers will work for them, but if the usual apathy is manifested, nothing will be done. If you want laws that will give you just protection in your business, let the legislators know it. If they do not know your wants surely they will do nothing to help you.

A FARMERS' GRAIN POOL.

The impracticability of having the government establish warehouses for storing and loaning money upon farm products has dawned upon some of the farmers, and those of Kansas have a new scheme, which, though it is not likely to prove a success, is far more practicable than the government warehouse scheme.

The scheme proposed by the Kansas Alliance is to form a grain pool and control prices. As far as controlling prices is concerned, no farmers' pool, or any other pool, can do it for any length of time. It is impossible. The Alliance of Sedgwick County took the initiative, and is forming a stock company, to have a capital of \$250,000.

The plan is to erect elevators at the most central markets in each county and to advance money on grain at a low rate of interest. It is the intention to charge a low storage rate. They will not operate the elevators for the purpose of making money, but in the interest of the stockholders.

It is difficult to understand how the farmers are going to gain anything by storing their grain together under one roof. If they do erect elevators and store all their grain in one house, it will be much easier to obtain some idea of the amount of grain in a county. These large accumulations will be a continual menace to the bulls, and serve to depress prices.

It would be far better for the farmers to store their grain at home or in the elevator of the buyer to whom they usually sell their grain. Most any country elevator man will clean grain and store it in a special bin for a small fee. In either case the grain producer could borrow money on his grain, and would not have to bear the expense of building and operating a large elevator.

It has been claimed by some enthusiastic advocates of the proposed grain pool that farmers could hold their corn until the price had advanced to \$1 per bushel and wheat until worth \$2 per bushel. These wild dreamers claim that the National Alliance is back of the scheme; that the movement will be general, and that they propose to get full value for all products of the soil. There are many potent reasons why the American people will never pay \$2 per bushel for wheat and \$1 for corn when the farmers have a bountiful supply on hand. In the first place, too many American farmers will always be in need of money, others are too avaricious, and a large number are by far too wise to refuse a fair price for their products.

The American people, and especially the farmers, are decidedly opposed to any pool, trust or combination being formed to advance the necessities of life, and long before these crazy schemers would be able to sell a thousand bushels of their wheat at the inflated price desired, we would be living on other products and imported bread-stuffs. This part of their scheme is not possible of attainment, and their plan of building elevators and storing their grain together has been tried before by co-operative associations of farmers. In ninety-nine cases out of a hundred it has failed, and the property has been sacrificed at a sheriff's sale. It will not be otherwise in the future.

Grain Dealers' Associations.

KANSAS AND NEBRASKA GRAIN DEALERS' ELEVATOR ASSOCIATION.

President, MASON GREGG, Lincoln, Neb.; Vice-President, FRANK LOWER, Council Grove, Kan.; Secretary, W. T. CAYWOOD, Clifton, Kan.; Treasurer, O. A. COOPER, Humboldt, Neb.

GRAIN SHIPPERS' ASSOCIATION OF NORTHWEST IOWA.

President, T. M. C. LOGAN, River Sioux; Vice-President, H. HANSON, Odebolt; Secretary and Treasurer, F. D. BABCOCK, Ida Grove; Assistant Secretary, F. G. BUTLER, Schaller.

Executive Committee, E. A. ABBOTT, Des Moines; J. Y. CAMPFIELD, Sac City, and T. M. CATHCART, Kingsley.

GRAIN DEALERS' ASSOCIATION OF OHIO.

President, J. W. McCORD, Columbus, Ohio; Vice President, L. BOGGS, Kingston; Secretary, E. C. WAGNER, Columbus; Treasurer, D. McALLISTER, Columbus.

Board of Managers, C. D. MILLER, Newark; DILL WEIGAND, South Bloomfield; E. M. BENNETT, JR., Urbana; C. W. PRINGLE, Lilly Chapel, and H. CHAMBERS, Worthington.

Legislative Committee, J. W. McCORD, D. McALLISTER, E. C. WAGNER, W. A. HARDESTY, and E. C. BEACHALL.

ILLINOIS GRAIN MERCHANTS' INSURANCE AND PROTECTIVE SOCIETY.

President, ISAAC VAN ORDSTRAND, Hawarden; Secretary and General Manager, S. K. MARSTON, Onarga; Vice-President, JOHN STEWART; Treasurer, G. C. McFADDEN, Havana.

Executive Committee, S. K. MARSTON, D. H. CURRY and F. M. PRATT.

Committee on Claims, D. M. BRUNER, J. F. ZAHN, H. C. MOWREY.

Committee on Legislation, W. ARMINGTON, V. R. ST. JOHN, C. C. ALDRICH.

EDITORIAL MENTION

THE movement of wheat in the Northwest was universally heavy the last week of the old year and the first of the new, but is decreasing.

THE Port Huron elevator case has not yet been decided, and probably will not be for some time to come. The amount of grain being taken that way now is not large.

WE have received a very neat calendar from the Schwartz Bros. Commission Co. of St. Louis, upon which is an illustration of the company's new elevator now in course of construction.

CORN has been bringing a higher price at Kansas City than at any other Western market and in Kansas it brings still better prices. If some of the farmers had the corn they burned last year they would now be bloated capitalists.

THE Rock Island Railroad Company has made an emergency rate on corn and oats in earloads for the benefit of the districts in Western Kansas and Nebraska where the corn and oats crops were a failure last year. The rate until March will be 10 cents per hundred.

WE should like very much to publish in each issue two or three pages of communications from our readers on subjects of interest to those connected with the elevator and grain trade. Do not be backward about writing; let us have your opinions. Give us the news.

THE Bureau of the American Republics has information that the President of Mexico has approved the bill recently passed by the Congress of that republic admitting corn from the United States free of duty. This is a large concession, as the duty heretofore has been one cent per kilo-

gram, or about one-half cent per pound. Now let our exporters wake up and take advantage of this market.

No grain dealer or elevator man can afford to try to do business without monthly doses of the Elixir of the Elevator and Grain Trade. If you live in the United States or Canada we will send you the AMERICAN ELEVATOR AND GRAIN TRADE for twelve months for one dollar.

BALTIMORE and Toledo dealers are having a pleasant argument regarding Toledo's clover seed standard. Several years ago these dealers had a long winded dispute about Toledo inspection. Is jealousy the real cause of all this noise, or have Baltimore dealers good cause for complaint?

It is claimed that a chemist has discovered a method whereby 400 pounds of soap can be made from one bushel of corn, and that it can be sold for 1 cent per pound. If we ever have a surplus of corn again we will surely have a surplus of soap, and soap warehouses may be necessary instead of grain elevators.

THE English sparrow is increasing just as fast as ever, and yet no new laws have been passed this winter providing for his extermination, neither have any books been written in opposition to his existence. If this apathy continues much longer the bulls will soon credit this little destructionist with the annihilation of the wheat crop.

GEORGIA has a new law which provides that bucket shops and similar institutions shall be taxed \$10,000 per year. This is a new way of attacking the bucket shops, but it is doubtful if it will prove more effective than the prohibition of these gambling dens. So far the efforts of the different states to exterminate the bucket shops have proved in vain, and there is little prospect of their ever succeeding.

ALTHOUGH little of the seed grain, supplied Dakota farmers last year by Minneapolis elevator men has been paid for, the farmers are once more seeking aid in the same direction. The experience of the elevator men of the Northwest in supplying the farmers with seed grain has been a bitter one. But they are not permitted to profit by experience. Every year the same exigency arises, and they supply the seed grain as before.

MISSOURI's Warehouse Commission has been examining the grain inspection department under its supervision, and its members claim to be greatly pleased with the success of state inspection. The dealers, who pay for the inspection and have thus supported the different departments are yet to be heard from, and undoubtedly can make suggestions which, if adopted, would bring about great improvement.

THIS journal is published in the interests of no party or faction of the elevator and grain trade but in the interests of each and every member of it, and we wish you to take advantage of the opportunity offered and indulge in a general exchange of opinions on any subject of interest to the trade. In no other way can you address so many connected with the elevator and grain trade as by sending us communications for publication in the AMERICAN ELEVATOR AND GRAIN TRADE.

THE Missouri Railroad and Warehouse Commission has been working very diligently of late, and has given attention to every interest but the grain dealers and millers. To pacify the farmers sinecure offices were established in the Grain Inspection Department and farmers appointed to fill them. Probably the department has been making more money than the commission knew what to do with, so instead of reducing the charge for inspection, the surplus will be given to a few influential farmers. The grain dealers and millers wanted W. M. Price appointed Chief In-

spector at St. Louis, but it seems he knew so little about politics and so much about grain, that he was considered inferior to other candidates.

THE Trunk Line Association has decided that it would not be advisable to attempt to put the uniform classification of freight into effect at present. The Illinois Railroad and Warehouse Commission ordered that it be put into effect Jan. 1 by all railroads of the state, but as yet no public announcement has been made to the effect that any of the roads have adopted it. Such observance of the law is remarkable.

IT is reported that Eastern grain men propose to build a large elevator at Shenandoah Junction, W. Va., where several railroads intersect one another for the purpose of handling, cleaning, mixing and grading for foreign markets the grain produced along the lines of the roads centering at this point. It would be far better to erect the elevator at Newport News or some other seaport town, and thus save the cost of one handling.

IN the United Kingdom an effort is being made to compel the sale of grain by weight, but those in favor of abolishing the numerous measures used differ as to the standard weight to be adopted. Uniformity of weights or measures used in any trade greatly simplifies the business, and it would greatly facilitate our grain trade at home as well as with the United Kingdom, if each country should adopt the central system of weights and measures.

At the annual election of the Minneapolis Grain Receivers' Association the following officers were elected for the ensuing year: L. R. Brooks, president; C. M. Harrington, vice-president; H. W. Commons, treasurer; W. B. Mohler, secretary. S. S. Linton was appointed chairman of the Warehouse and Inspection Committee and L. M. Sherman a member of that committee. The committee otherwise consist of the same members that served the past year.

MERCHANT & Co., manufacturers and dealers in metals, of Philadelphia, have issued a pleasing illustrated pamphlet entitled "A Midsummer Night's Dream," being a somnambulistic ramble with Merchant & Co. and their friends, the brownies. The illustrations show the brownies making, handling and using the products of Merchant & Co. in the expressive way the brownies have of doing everything. It is a creditable production, and in it are described the products of the publishers.

RAILROAD companies have always experienced some trouble in collecting their unjust demurrage charges, and at times they have taken doubtful methods for collecting for detention of cars. A decision has recently been rendered by the Illinois Railroad and Warehouse Commission which puts a stop to one way they had of collecting demurrage charges in Illinois. It has decided that a railroad company cannot refuse to switch cars for a shipper who is in debt to the road for demurrage in order to make him pay the bill. This is as it should be.

BRADSTREET's report of Dec. 27 shows an increase in the stocks of wheat for the week of 959,384 bushels and an increase of nearly 2,000,000 bushels in the stocks for the month. On Dec. 27 the stocks of wheat east of the Rocky Mountains aggregated 46,469,884 bushels, against 54,227,176 on Jan. 1, 1890, and 37,938,759 on Nov. 1. The stocks of corn on Dec. 27 was only 4,700,554 bushels, against 15,467,400 bushels on Jan. 1, and 10,014,087 bushels on Nov. 1. The stock of oats on Dec. 27 amounted to 5,884,252 bushels, against 6,863,307 bushels on Nov. 1, and 9,701,279 bushels on Jan. 1. The stocks of barley on Dec. 27 were 4,878,750 bushels, against 6,005,405 on Nov. 1, and 2,879,836 on Jan. 1. The stocks of rye were not very large, the amount being 882,188 bushels on Dec. 27, against 1,223,443 bushels on Nov. 1, and 1,699,517 bushels on

Jan. 1, 1890. The amount of wheat in the Pacific coast warehouses on Dec. 27 was 11,260,000 bushels, against 7,571,266 bushels on Nov. 1.

A BILL has been introduced in Congress providing for the amendment of the Inter-State Commerce Law so that all foreign roads doing business in this country will be required to take out a license from the Inter-State Commerce Commission, and to sign a stipulation to obey the law. Any disobedience of it is to incur the suspension of the license to do business for three months. This is aimed at the Canadian roads, which have been cutting in on the business of the American roads and have been carrying American freight at a rate much below their rate on Canadian freight.

OMAHA's Board of Trade is still working for a state warehouse law and the establishment of state inspection in that city. When they get it all grain passing that city to points outside the state will be inspected and taxed as it passes through, and included in the receipts and shipments of Omaha. If state inspection is also established at Lincoln and Nebraska City, the same will occur at these points; so, much of the grain will be inspected and taxed twice before it gets outside of the state. Will the shippers derive sufficient benefit from the inspection to justify them in paying for it? is a very one-sided question.

DURING December we exported breadstuffs valued at \$10,126,739 against \$14,067,326 for the preceding December, and during the six months of 1890 breadstuffs valued at \$54,806,216 against \$68,649,350 for the same months of 1889. The breadstuffs exported during 1890 were valued at \$136,845,899 against \$125,879,059 for 1889. The exports for the last six months of 1890 included 22,975,195 bushels of wheat, 322,912 of rye, 762,743 of oats 18,195,187 of corn and 275,919 of barley against 28,365,393 bushels of wheat, 861,767 of rye, 2,180,709 of oats, 33,566,501 of corn and 861,953 of barley for the last six months of 1889.

THE Chicago Board of Trade has won two suits brought against it by the bucket-shop men by having the cases dismissed from the courts. One suit was brought to restrain the Board from withholding market quotations, but the Board went out of the quotation business last March, so no injunction could be secured. The other case was brought by members of the Board who also did business on the Open Board of Trade, and wished the Board restrained from expelling them for trading before and after hours. This case was also dismissed. If the Board keeps on winning suits against the bucket-shop men they may be forced to suspend.

WE should be pleased to publish in each issue of the AMERICAN ELEVATOR AND GRAIN TRADE, until shortages are a thing of the past, a list of the shortages occurring in your shipments of grain to the grain centers of the country, for the purpose of giving country shippers some idea of the great amount of grain lost in this way, and in hope of initiating an organized movement against the abuse. We will publish your name or not, just as you desire. We will want the amount and kind of grain shipped and to what market, and the amount of grain reported as received. Let each and every one of our readers give us a list of his shortages.

DEMURRAGE is an unjust charge which shippers avoid paying whenever it is possible for them to do so. The Central Traffic Association has decided to add an additional clause to its bills of lading regarding demurrage charges and will print the following on all freight tariffs and bills of lading so as to prevent any trouble in collecting charges for demurrage: "When freight is to be loaded by consignor or unloaded by consignee, \$1 per day or fraction thereof for delay beyond forty-eight hours in loading or unloading will be added to and constitute a part of the rates named in this tariff."

Now if the Association will have an additional clause printed on its bill of lading providing that the shipper shall be paid \$1 per day or fraction thereof for a delay of more than forty-eight hours in excess of the actual time required to transport shipments, they will be doing the fair and just thing by shippers.

GRAIN dealers will do well to warn their friends against one H. P. Hart who has been flooding the country with circulars in which the firm of H. P. Hart & Co. claim to be "about to enter the fifth year of a very successful and profitable business" as "commission merchants in grain, provisions, stocks, oils, etc." Mr. Hart is the company as well as the head of the firm, and his references the "Illinois Loan and Trust Company" and the "Eastern and Western Mercantile Agency" do not exist. If you do not want your money give it to the poor and the needy, burn it, destroy it in any way, but do not send it to H. P. Hart & Co., at 177 La Salle street, Chicago.

CANADIAN railroad companies do not propose to give grain shippers an indefinite time for the payment of freight charges, and recently gave notice that after the first day of 1891 all freight charges on grain consigned to the elevators at Port Arthur and Fort William must be paid on arrival or upon delivery of grain, together with the elevator charges and interest at 6 per cent. So interest on freight charges will be a new item of expense in the business of the grain shippers of the Northwest. The question arises, will the railroad company be fair and allow interest at 6 per cent. per annum on rebates for overcharges, for which shippers frequently wait from one to five years.

Points and Figures.

There is an alleged movement of the Kansas farmers to force a sweeping reduction in grain rates from points in the state.

Chester W. Yerex, the hull-less oats swindler will be extradited from Bremen, Germany, by the Bank of Commerce of Belleville, Ont.

Give us your opinions on any subject of interest to the members of the elevator and grain trade for publication in our communicated department.

In thirty years the acreage devoted to corn in the United States has increased five and a half fold, but the yield of corn has increased less than four fold.

New York exported 29,732 bags of clover seed during the four months ending with December, against 28,976 bags in the corresponding time of 1889.

The wheat area of Minnesota is estimated at 3,082,293 acres by the state secretary, while Statistician Dodge puts it at 3,673,000, a difference of 590,000 acres.

It is estimated that some of the farmers are going to plant 90-day corn in order to get it out of the way before politics start again.—*Hutchinson, Kan., News*.

The *Cimarron Echo* says Kansas grain is especially sought after by exporters because of its peculiar dryness, while grain grown in the central states is so humid that it frequently spoils in ocean transit.

A chemist has invented a process of making soap from corn. It is claimed that one bushel of corn will make 400 pounds of the finest toilet soap. It is wonderful how some men can prevaricate.

Studabaker, Sale & Co., Bluffton, Ind.: "We could not do without the AMERICAN ELEVATOR AND GRAIN TRADE. It has become one of the necessities in our office."

The receipts of clover seed at Toledo, Ohio, during the last four months of 1890 were 44,736 bags, against 70,241 bags in the same period of 1889. The shipments from that point during the last four months of 1890 were 35,040 bags, and for the same time of 1889, 55,679 bags.

The farmers in the vicinity of Dundee, Man., secured very good yields last year. Some of these reported are as follows: Wheat from 16 to 20 bushels, oats 40 to 60, barley about 32. The greatest yield reported is 1,920 bushels of oats from 32 acres. Mr. A. B. Cook had 312

bushels of the American Banner oats from 10 bushels sown.

The United States exported to Italy in 1889 21,914 tons of grain, 4,634 tons of corn, 473 tons of other cereals, 13 tons of hulled rice and 6,393 pounds of seeds.

It merits the support of every elevator man and grain dealer in the entire world—the AMERICAN ELEVATOR AND GRAIN TRADE published at Chicago, in the interests of everyone connected with the grain trade.

Tacoma, Wash., is rapidly increasing in importance as a grain center. Recent advices from that place state that the wheat blockade may soon be transferred to this side of the mountains. During four days recently 400,000 bushels of wheat arrived.

New York exported in the time from Jan. 1 to Dec. 2, 1890, 11,862,567 bushels of wheat, 23,685,738 bushels of corn and 3,984,110 barrels of flour, against 9,740,933 bushels of wheat, 27,923,219 bushels of corn and 3,812,800 barrels of flour in the corresponding period of 1889.

The exports of wheat from San Francisco during the year 1890 aggregated 13,014,000 centals (21,690,000 bushels) valued at \$17,278,000. The exports were chiefly to Great Britain, France, Belgium and Brazil. This shows an increase over 1889 of 900,000 centals and in value of \$636,000.

The Canadian Pacific and the Northern Pacific railways announced recently another reduction in the all rail rates on grain, flour and mill stuffs of two and a half cents from Brandon, Man., to Toronto, and points west of the latter city, making the rate 44½ cents instead of 47 cents as heretofore, and 42 on oatmeal, oats and barley.

The report of the jurors who examined samples of Canadian barley, recently shown at the Brewers' Exhibition in England, has been forwarded to Ottawa. The jurors consider there is a good market in Britain for the higher class of samples whose quality they praise. They offer many hints for a few improvements of the average quality of the grain.

It is said that certain parties having legitimate connection with the Chicago Board of Trade have been sending out quotations by messenger to an office near by, from which they are distributed by telegraph to all the bucket shops in the city and to smaller towns. The figures are given out within one minute after they are made and with perfect accuracy.

Secretary Stone of the Chicago Board of Trade reports the visible supply as follows:

	Jan. 10, 1891.	Jan. 3, 1891.	Jan. 9, 1890.
	Bush.	Bush.	Bush.
Wheat	25,268,239	25,603,310	33,178,628
Corn	2,767,003	2,699,575	10,833,668
Oats	3,629,886	3,639,544	4,977,304
Rye	439,477	475,051	1,279,940
Barley	3,811,090	4,059,572	2,283,070

The man who is so conceited that he thinks it is impossible for him to learn anything more about his business has much less chance of succeeding than the energetic merchant who is anxious to keep posted and advance with the times. Subscribe for the AMERICAN ELEVATOR AND GRAIN TRADE, only \$1 per year, the only paper which is published in the interests of the elevator and grain men.

Canadian collectors of customs will hereafter be required to levy duty on seeds coming through the mails. At the last session of Parliament different varieties of field and garden seed were made dutiable, but at certain ports seed packages sent through the mails have been delivered by postmasters without collecting the duty. Henceforth uniformity will be insisted upon. Catalogues are also dutiable under the law.

The elevator companies along the western end of the Union Pacific seem to have it all their own way, says a coast exchange. Mr. Michener, superintendent of the Pacific Coast Elevator Company, approached Mr. Lyons, superintendent of the Washington and Idaho division, with a demand for more cars. He was met with the statement that while he (Lyons) had control of the distribution of the cars, the elevator company would get its full pro rata, but that he would not discriminate in favor of them. If any discrimination was made it would be in favor of those who had a few carloads of wheat to transport, and who did not have the same under shelter. He did not propose to discriminate at all, however, but would see that the small shippers had their rights. Some hard language was used by the elevator man. Soon after Michener went to Portland, and Lyons' release followed in short order.

CHICAGO'S GRAIN TRADE FOR 1890.

The year 1890 was a banner year for the grain trade of Chicago, the amount of grain handled exceeding that of any preceding year.

The amount of wheat handled, however, was much below the average for the preceding ten years, and the amount received was less than for any year since 1872, when only 12,724,141 bushels were received. The amount received in 1890 was only 13,366,699 bushels against 18,762,647 bushels in 1889, and 13,438,069 bushels in 1888. Only once in the preceding twenty years did the amount of wheat shipped fall below the amount shipped in 1890, and that was in 1883, when only 11,728,754 bushels were shipped. The amount shipped in 1890 was 11,919,723 bushels against 16,138,825 bushels in 1889, and 12,009,269 bushels in 1888.

The following table shows how the grain inspected in was graded. The two right hand columns show the amount in bushels received by lake and canal. The others show the amount in cars inspected in by rail.

WINTER WHEAT.

Grade.	1890.	1889.	1890.	1889.
	Cars.	Cars.	Bush.	Bush.
No. 2 white.....	53	34	.....	.....
No. 3 ".....	172	141	900	.....
No. 4 ".....	85	86	4,100	.....
No. 1 Turkish.....	3	.....	.....	.....
No. 2 ".....	3,752	148	.....	.....
No. 3 ".....	1,279	.....	15,500	.....
No. 2 long red.....	2	.....	.....	.....
No. 1 red.....	4	.....	.....	.....
No. 2 ".....	3,382	5,027	.....	12,260
No. 3 ".....	4,710	14,123	83,014	81,400
No. 4 ".....	1,538	3,168	400	.....
No grade.....	297	520	3,300	800
Totals.....	15,277	23,247	107,214	94,460

SPRING WHEAT.

Grade.	1890.	1889.	1890.	1889.
	Cars.	Cars.	Bush.	Bush.
No. 2 hard.....	1	33	.....	.....
No. 1.....	2	.....	.....	.....
No. 2.....	5,749	6,599	236,639	75,966
No. 3.....	6,323	3,694	92,052	.....
No. 4.....	1,642	3,230	.....	.....
No grade.....	174	262	.....	.....
No. 2 white.....	31	4	.....	.....
No. 3 ".....	383	578	.....	.....
No. 2 mixed.....	21	2	.....	.....
No. 3 ".....	86	18	3,400	.....
No. 2 Colorado.....	109	22	.....	.....
No. 3 ".....	20	6	.....	.....
Totals.....	14,539	13,450	332,091	75,966

The decline of Chicago's wheat trade is due to the fact that the number of routes to the seaboard and the Eastern states is continually increasing, and the facilities for handling grain by other routes than by way of Chicago have been greatly increased. The "Soo" and other railroads of the North and Duluth have been instrumental in diverting much of this trade from Chicago. Then, too, the percentage of our wheat exported in the form of grain is yearly becoming less, the bulk of it being exported in the shape of flour. The increase in the amount of flour received at Chicago more than offsets the decrease in the amount of wheat received.

The receipts of corn were very heavy, in fact they were exceeded only once during the preceding twenty years. The receipts for 1880 were 97,272,844 bushels, for 1890 the amount received was 81,117,251 bushels against 79,920,691 bushels in 1889, 74,208,908 bushels in 1888, and 51,538,217 bushels in 1887. The shipments for 1890 were never exceeded except by those of 1880, when 93,572,934 bushels were shipped. In 1890 90,556,109 bushels were shipped against 83,860,818 in 1889, 69,522,565 in 1888, and 50,443,992 in 1887.

The corn inspected in for the past two years was graded as follows:

Grade.	1890.	1889.	1890.	1889.
	Cars.	Cars.	Bush.	Bush.
No. 1 yellow.....	2	.....	.....	.....
No. 2 ".....	16,684	22,174	180,754	81,400
No. 3 ".....	17,933	16,011	160,269	51,000
No. 2 white.....	3,837	5,678	9,900	34,800
No. 3 ".....	4,338	2,629	6,100	22,600
No. 2.....	42,558	44,902	2,117,481	1,241,125
No. 3.....	38,681	40,862	1,249,211	265,600
No. 4.....	13,812	10,000	129,893	29,200
No grade.....	1,042	570	11,705	.....
Totals.....	138,897	142,826	3,865,313	1,725,725

The receipts of oats were much larger than ever before, 64,480,560 bushels being received against 49,901,942 bushels for the preceding year, 52,184,878 bushels for 1888, 45,306,277 bushels for 1887, and 39,977,315 bushels for 1886. The shipments for 1890 amounted to 70,732,945 bushels, or more than twice the amount of the shipments for any year preceding 1887. In 1889 50,471,836 bushels were received against 40,896,971 bushels in 1888, and 37,148,221 bushels in 1887. The oats inspected in during the past two years were graded as follows:

Grade.	1890.	1889.	1890.	1889.
	Cars.	Cars.	Bush.	Bush.
No. 1 white.....	3	2	.....	.....
No. 2 ".....	27,491	10,094	.....	.....
No. 3 ".....	30,727	31,043	1,139,310	22,500
No. 2.....	11,371	9,684	414,797	504,100
No. 3.....	4,404	6,381	250,715	237,500
No grade.....	364	184	10,300	7,000
Totals.....	74,360	57,388	1,815,122	761,100

The receipts of rye amounted to 2,946,720 bushels against 2,605,984 for 1889, 2,767,571 for 1888 and 847,069

bushels for 1887. The receipts for three preceding years were heavier than for 1890. In 1879 4,497,340 bushels were received, in 1883 5,484,259, and in 1884 3,327,516 bushels. The shipments of rye were exceeded in two preceding years only. In 1883 3,838,557 bushels were shipped, and 4,365,745 in 1884. The shipments for 1890 amounted to 4,274,382 bushels against 2,81,366 bushels in 1889, 1,744,380 in 1888, and 690,830 in 1887. The rye inspected in during the past two years was graded as follows:

Grade.	1890.	1889.	1890.	1889.
	Cars.	Cars.	Bush.	Bush.
No. 1.....	2	15	.....	.....
No. 2.....	3,414	5,923	66,667	15,900
No. 3.....	1,049	1,313	1,525	22,285
No grade.....	61	123	.....	.....
Totals.....	4,526	4,374	68,192	68,185

The receipts of barley were larger than ever before, 15,133,971 bushels being received against 12,524,528 bushels for 1889, 12,387,526 in 1888, 12,170,402 in 1887, 12,511,953 in 1886, and 10,760,127 in 1885. In no preceding year did the receipts amount to 9,000,000 bushels. The shipments of barley in 1890 were also larger than ever before, 9,470,221 bushels being shipped against 8,138,109 in 1889, and 7,772,351 in 1888. The barley received in cars during the last two years was graded as follows:

Grade.	1890.	1889.
No. 1 Bay Brewing.....	.....	1
No. 2 ".....	11	52
No. 3 ".....	14	53
No. 2 Chevalier.....	3	.....
No. 3 ".....	.....	2
No. 2.....	82	74
No. 3.....	14,047	7,283
No. 4.....	5,072	5,785
No. 5.....	444	703
No grade.....	396	130
Totals.....	20,069	14,083

DISCRIMINATING RATES.

The investigation which has been going on of late in the United States in the matter of discriminating rates granted by railroad companies to favored shippers, has attracted much attention from shippers, says the *Commercial* of Winnipeg. In the grain trade especially this interest has been aroused. Grain is handled on such a small margin, that if a shipper can work a railway company for a special rate, he has an immense advantage over his competitors. In some lines of business a lower rate granted one or more parties, would not be seriously felt by others in the same trade. But to the grain shipper everything depends upon rates. A lower rate granted by a railway company to one or more shippers in this trade would seriously hamper the operations of others in the same line, if it would not drive them entirely out of business. The seriousness of the case is, therefore, made apparent. Say two firms are handling grain along the same line of railway. Each has invested several hundred thousand dollars in elevators and other plants along this road. Finally one firm secures a special cut rate, and it is enabled to buy at such prices as will compel the other firm to abandon the business, thus rendering valueless its large investment along the railway. In a business done on such close margins as grain shipping, it is quite possible for a favored firm to get such a cut in freight rates as will enable it to crush out competitors. In fact, this is exactly the situation which has been brought to light in the United States, and this was done in the face of the most stringent laws against discriminating rates.

It is a matter of genuine satisfaction that the offence has been brought home to those guilty of it. Those who have violated the law will justly merit the punishment which they will receive, and no false sympathy will be wasted upon them. The only pity is that cases of this nature cannot be more readily traced up and punished. The practice of giving discriminating rates cannot be too severely condemned. It is such a serious offence that it should be made a crime meriting even heavier penalties than those provided, that if possible the custom could be entirely stamped out. In this matter of rates the railways have it in their power to build up one man through the ruin of another, and where they are disposed to resort to such monstrous practice, they cannot be too severely punished when detected in the offence.

STORAGE RATES AT CHICAGO.

The public elevator men of Chicago have given notice that the rates for the storage of grain in their warehouses shall be as follows during the ensuing year:

On all grain received in bulk and inspected in good condition, three-quarters (3/4) of one (1) cent per bushel for the first ten (10) days, or part thereof, and one-third (1/3) of one (1) cent per bushel for each additional ten (10) days, or part thereof, so long as it remains in good condition.

On and after Dec. 1, 1891, upon all grain in good condition, storage will be at the above rate until four (4) cents per bushel shall have accrued, after which time no additional storage will be charged until the first day of May, 1892.

On grain damp, or liable to early damage, as indicated by its inspection when received, two (2) cents per bushel for the first ten (10) days, or part thereof, and one-half (1/2) of one (1) cent per bushel for each additional five (5) days, or part thereof.

No grain will be received in store until it has been inspected and

LATE PATENTS

Issued on December 16, 1890.

CONVEYING APPARATUS.—Charles W. Hunt, West New Brighton, N. Y. (No model.) No. 442,976. Serial No. 364,763. Filed Sept. 12, 1890.

GRAIN-CLEANING MACHINE.—George A. Gilbert and William Richardson, Milwaukee, Wis.; said Richardson assignor to said Gilbert. (No model.) No. 442,805. Serial No. 331,439. Filed Nov. 25, 1889.

GRAIN METER.—Francis H. Richards, Hartford, Conn., assignor to the Pratt & Whitney Co., same place. (No model.) No. 442,718. Serial No. 342,647. Filed March 4, 1890.

GRAIN WEIGHER.—Francis H. Richards, Hartford, Conn., assignor to the Pratt & Whitney Co., same place. (No model.) No. 442,719. Filed March 28, 1890.

GRAIN WEIGHER.—Francis H. Richards, Hartford, Conn., assignor to the Pratt & Whitney Co., same place. Original application filed March 28, 1890. Serial No. 345,730. Divided and this application filed July 14, 1890. (No model.) No. 442,720. Serial No. 358,634.

GRAIN WEIGHER.—Charles H. Cooley, Hartford, Conn., assignor to the Pratt & Whitney Co., same place. (No model.) No. 442,722. Serial No. 338,544. Filed Jan. 30, 1890.

GRAIN WEIGHER.—Charles H. Cooley, Hartford, Conn., assignor to the Pratt & Whitney Co., same place. (No model.) No. 442,723. Serial No. 338,818. Filed Jan. 31, 1890.

GRAIN WEIGHER.—Charles H. Cooley and Francis H. Richards, Hartford, Conn., assignors to the Pratt & Whitney Co., same place. (No model.) No. 442,724. Serial No. 389,967. Filed Feb. 11, 1890.

REGULATOR FOR GRAIN SCALES.—Francis H. Richards, Hartford, Conn., assignor to the Pratt & Whitney Co., same place. (No model.) No. 442,711. Serial No. 324,242. Filed Sept. 17, 1890.

GRAIN WEIGHER.—Francis H. Richards, Hartford, Conn., assignor to the Pratt & Whitney Co., same place. (No model.) No. 442,712. Serial No. 340,814. Filed Feb. 17, 1890.

GRAIN WEIGHER.—Francis H. Richards, Hartford, Conn., assignor to the Pratt & Whitney Co., same place. (No model.) No. 442,713. Serial No. 341,196. Filed Feb. 20, 1890.

GRAIN WEIGHER.—Francis H. Richards, Hartford, Conn., assignor to the Pratt & Whitney Co., same place. (No model.) No. 442,714. Serial No. 341,197. Filed Feb. 20, 1890.

REGULATOR GRAIN WEIGHER.—Francis H. Richards, Hartford, Conn., assignor to the Pratt & Whitney Co., same place. (No model.) No. 442,715. Serial No. 341,499. Filed Feb. 24, 1890.

REGULATOR GRAIN WEIGHER.—Francis H. Richards, Hartford, Conn., assignor to the Pratt & Whitney Co., same place. (No model.) No. 442,716. Serial No. 342,297. Filed March 1, 1890.

GRAIN WEIGHER.—Francis H. Richards, Hartford, Conn., assignor to the Pratt & Whitney Co., same place. (No model.) No. 442,717. Serial No. 342,656. Filed March 4, 1890.

GRAIN WEIGHER.—Charles H. Cooley and Francis H. Richards, Hartford, Conn., assignors to the Pratt & Whitney Co., same place. (No model.) No. 442,859. Serial No. 358,658. Original application filed Feb. 11, 1890. Divided and this application filed July 14, 1890.

GRAIN WEIGHER.—Charles H. Cooley and Francis H. Richards, Hartford, Conn., assignors to the Pratt & Whitney Co., same place. (No model.) No. 442,860. Serial No. 358,659. Original application filed Feb. 11, 1890. Divided and this application filed July 14, 1890.

GRAIN WEIGHER.—Charles H. Cooley and Francis H. Richards, Hartford, Conn., assignors to the Pratt & Whitney Co., same place. (No model.) No. 442,861. Serial No. 358,660. Original application filed Feb. 11, 1890. Serial No. 339,967. Divided and this application filed July 14, 1890.

Issued on December 28, 1890.

BALING PRESS.—George B. Allen, San Lcandro Cal. (No model.) No. 443,172. Serial No. 345,749. Filed March 28, 1890.

BAG FASTENER.—John F. Schultz, Martinsville, Pa. (No model.) No. 443,298. Serial No. 327,619. Filed Oct. 21, 1890.

COMBINED CORN SHELLER AND CUTTER.—Samuel Loree, Cincinnati, O., assignor of one-half to John Loree, Lincoln, Neb. (No model.) No. 443,143. Serial No. 356,900. Filed June 26, 1890.

GRAIN CLEANING MACHINE.—Alexander Laidlaw, Toronto, Canada. (No model.) No. 443,366. Serial No. 369,770. Filed Jan. 8, 1890. Renewed Oct. 30, 1890.

GRAIN SCOURER AND CLEANER.—Arthur Moore, Toronto, Canada. (No model.) No. 443,372. Serial No. 369,790. Filed Feb. 20, 1890. Renewed Oct. 30, 1890.

GRAIN WEIGHER.—Francis H. Richards, Hartford, Conn., assignor to the Pratt & Whitney Co., same place. (No model.) No. 443,180. Serial No. 358,635. Original application filed Feb. 26, 1890. Serial No. 341,196. Divided and this application filed July 14, 1890.

Issued on December 30, 1890.

GRAIN WEIGHER.—Charles H. Cooley, Hartford, Conn., assignor to the Pratt & Whitney Co., same place. (No model.) No. 443,569. Serial No. 358,642. Filed July 14, 1890.

GRAIN WEIGHER.—Charles H. Cooley and Francis H. Richards, Hartford, Conn., assignors to the Pratt & Whitney Co., same place. (No model.) No. 443,933. Serial No. 360,240. Original application filed Feb. 11, 1890. Serial No. 339,967. Divided and this application filed July 28, 1890.

GRAIN WEIGHER.—Francis H. Richards, Hartford, Conn., assignor to the Pratt & Whitney Co., same place. (No model.) No. 443,153. Serial No. 362,214. Filed Aug. 16, 1890.

GRAIN WEIGHER.—Francis H. Richards, Hartford, Conn., assignor to the Pratt & Whitney Co., same place. (No model.) No. 443,718. Serial No. 361,042. Filed Aug. 5, 1890.

Issued on January 6, 1891.

BALING PRESS.—Daniel A. Keena, Eagle Grove, Ia. (No model.) No. 444,194. Serial No. 344,565. Filed March 19, 1890.

PNEUMATIC CONVEYOR.—James W. Beach, Fernwood, Ill. (No model.) No. 444,038. Serial No. 362,887. Filed Aug. 23, 1890.

LAW AND LITIGANTS.

Loan of Money for Wagering Contract.

The fact that a bank which loans money has knowledge that it is to be used for investment in options or other contracts held in the law to be wagering, gaming or otherwise unlawful, cannot be used as a defense to an action to recover the money from the one to whom it was loaned.—*Jackson vs. City National Bank of Goshen, Supreme Court of Indiana*, 25 N. E. Rep. 430.

Injury Through Negligence of Employer.

In the case of the Union Pacific Railroad Company vs. Broderick, the Supreme Court of Nebraska has decided that where an employer negligently provides his workman with improper and unsafe apparatus with which to perform the work, and the workman, without any fault on his part, is injured owing to the employer's neglect to provide suitable, safe and proper appliances, the employer is liable for the injury.

Release of Liability in Telegraph Blank.

The agreement in a telegraph blank that unless the message is repeated the company shall not be held liable even for the negligence of its employees, is void as against public policy. The company cannot, by any agreement with the sender of a message, escape liability for the negligence of its employees, as that is a responsibility imposed upon it by law, and not by contract.—*Western Union Telegraph Co. v. Short, Supreme Court of Arkansas*, 14 S. W. R. p. 649.

Steamship Lines not Exempt.

In the case of Miller vs. South Carolina Railroad Company the Supreme Court of South Carolina decided that a statute with reference to the liability of common carriers, and the rights and duties of connecting lines in the shipment of freight, though drawn in language which only includes railroads within its operations, will be held to apply with equal force to steamship lines which, by the agreement of the shipper, form one of the connecting lines in the transportation of the goods.

Damages for Wrongful Attachment.

The Supreme Court of Iowa decided in the case of the Fullerton Lumber Company vs. Spencer, that where a stock of goods is wrongfully attached, in order to recover damages for the attachment the owner must show either that the stock has been injured, that he has been deprived of a sale, or that in some other manner he has suffered substantial damage, or he will not be entitled to recover. An instruction, in the absence of proof of actual damage, that he is entitled to recover at the rate of 6 per cent. per annum on the value of the property during the time it was held under attachment, is erroneous.

Nebraska Farmers' Alliance has adopted resolutions urging the legislature to enact a new maximum freight rate bill.

The grain elevator occupied by M. E. Worthing & Co. at Brayton, Ia., was burned on the morning of Sunday, Jan. 4, together with \$1,000 worth of grain. The building was owned by H. M. Boorman of Atlantic. Loss on building \$1,500; fully insured.

Fires, Casualties, Etc.

A. B. Brant, grain and lumber dealer at Attica, O., is dead.

Chas. H. Cummings, grain dealer at Philadelphia, is dead.

George Anderson, grain dealer at Harriston, Ont., is dead.

John Parker's distillery at Shelby, N. C., was buried recently.

O. M. Young, dealer in grain, lumber and hardware at Berlin, Neb., is dead.

The elevator of Million & Bot's at Kahoka, Mo., buried Dec. 17. Loss \$21,000.

The Boonville Brewing Company of Boonville, N. Y., suffered loss by fire recently.

William H. Gilpin, a grain commission merchant of Cincinnati, O., died recently.

A. H. Hurley, Sr., of Hurley & Son, grain and feed dealers at Nashville, Tenn., is dead.

Noble Bennett, grain and flour dealer at New Britain, Conn., recently suffered loss by fire.

The Inman Hay Company, grain and hay dealers at Omaha, Neb., have suffered loss by fire recently.

Spontaneous combustion caused a small fire in the basement of the starch works at Ottumwa, Ia., at 6 o'clock Jan. 2.

Stephens & Co.'s distillery and warehouse at Cartner's Station, Tenn., were buried Dec. 23. Loss \$20,000; insurance \$14,000.

The old Yingling brewery at Richmond, Va., owned by J. F. Betz of Philadelphia, was burned Jan. 4. Loss \$40,000; insured.

A granary at Pipestone, Minn., was burned Dec. 12, together with 15,000 bushels of grain. Loss \$20,000; no insurance on grain.

The cotton-seed oil mill of A. F. Badart at Lower Canton, near Baltimore, Md., was recently damaged by fire. Loss \$5,000; insured.

Montgomery Bros.' elevator and warehouse at Templeton, Ia., were burned on the morning of Dec. 27. Loss \$20,000; partly insured.

The elevator and mill of the Dietrick Milling Company at Tippecanoe City, O., was burned Nov. 24. Loss \$30,000; partly insured.

H. A. Fuller & Sons' grain store at Tampa, Fla., was burned at 4 o'clock on the morning of Dec. 21. Loss \$6,000; insurance \$3,000.

P. Dresen's elevator at Bennington, Neb., was recently burned, together with 3,000 bushels of grain. Loss \$6,000; insurance \$2,500.

William L. Unger, a grain commission merchant and a member of the Baltimore Corn and Flour Exchange, died Jan. 9, aged 46 years. He left a widow.

The Buck grain elevator at Elkton, S. Dak., was burned Jan. 1, together with 2,000 bushels of grain and a large quantity of coal. Loss \$10,000; no insurance.

George C. Bagley, the elevator man of Minneapolis, Minn., was thrown from his carriage in a runaway accident Dec. 26, receiving severe and painful bruises.

The grain elevator of Pringley & Wesley at Grant, Neb., was burned Dec. 11, together with 2,000 bushels of wheat and 2,000 bushels of corn. Loss \$6,000; insurance \$5,000.

Burglars entered the office of the elevator at Lockbourne, O., early in the morning of Dec. 19. They blew off the heavy outer door of the safe, but failed to reach the money drawer.

The grain elevator of John Henry at Clarksville, Ia., situated on the Chicago, St. Paul & Kansas City Railway, was destroyed by fire at 11 p. m., Dec. 9. The fire started in the engine room. Loss \$60,000; no insurance.

John Black's grain elevator at Fergus, Ont., on the Grand Trunk Railway, was burned Jan. 6 at 1 o'clock in the morning. A hay barn adjoining was also consumed, together with 60 tons of hay. The elevator contained 25,000 bushels of grain, mostly wheat, and was fitted up with the best modern machinery. Loss \$30,000; insurance not known.

The malt house of the F. & M. Schaefer Brewing Company in New York City, was wrecked Dec. 18 by the front wall falling out. Fifty thousand bushels of barley were dumped into the street. The barley was hauled to a storage house, with small loss. The collapse of the wall is supposed to have been caused by the high wind blowing at the time.

ELEVATOR AND GRAIN NEWS

A brewery has been built at Patapsco, Md. Nebraska City, Neb., is to have a distillery. Paris, Tex., will have a cotton-seed oil mill. A distillery will be built at Fort Worth, Tex. M. Stoner will build a distillery at Atlanta, Ga. Mr. Krug is building a brewery at Omaha, Neb. A large distillery is to be built at Ashland, Tenn. A cotton-seed oil mill is talked of at Yoakum, Fla. A broom factory has been built at Brookings, Dak. Gruber & Co. are building a brewery at Wooster, O. John Dastal is building a brewery at Maquoketa, Ia. J. J. Spears will build a rice mill at Brunswick, Ga. A rice mill will probably be built at Kissimmee, Fla. W. T. Head is building a rice mill at Dahlonega, Ga. Marshall Smith, grain dealer at Denver, Colo., has sold out. A cotton-seed oil mill and gin will be built at Skidmore, Tex. A glucose factory will probably be built at Wolfe City, Tex. A stock company will build a brewery at Fremont, Neb. T. K. Hudgens will build a broom factory at Easley, S. C. Wolfe City, Tex., will probably have a glucose factory. Beeker & Coyle are erecting a brewery at Jersey City, N. J. Fehleisen & Co. are building a brewery at Newark, N. J. Samuel Wilson is building a distillery at Adolphus, Tenn. A grain elevator and flour mill will be built at Findlay, O. E. A. Brooks will build a cotton seed oil mill at Carrollton, Ga. Manitoba oats are finding a good market in Eastern Canada. Volk Bros. of Great Falls, Mont., are building a brewery. Hoppe & Muller are enlarging their brewery at Platteville, Wis. J. B. Van Hulen has completed his elevator at Hamilton, Mich. Work on elevator "C" at Fort William, Ont., has been suspended. H. Darmstaetter & Bro. of Detroit, Mich., are building a brewery. H. C. Ross is negotiating for an elevator site at Rapid City, Man. The Germania Brewing Association will build a brewery in Chicago. The North Side Brewing Company will build a brewery at Chicago. Leon Dupuis will build a cotton-seed oil mill at Breaux Bridge, La. J. M. Rushin is building a cotton-seed oil mill at Boston, Ga. Henry Hester and others are building a distillery at Rush Branch, Ky. William Jenkins, grain and coal dealer at Alma, Neb., has sold out. E. A. Baker has established a grain warehouse at Bohart, Assa. Legler & Robertson have built a broom factory at New Decatur, Ala. The Sabs-Prudens Ale Company is building a brewery at Dayton, O. The Central Brewing Company will build a brewery at Savannah, Ga. Thomas Armsted is building a cotton-seed oil mill at Mansfield, La. The linseed oil mill at Leavenworth, Kan., is running day and night. A stock company will build a cotton-seed oil mill at Hatteras, N. C. J. D. Sibbald of Regina, Man., is operating the elevator at that place, and last year enlarged his grain ware-

house, making it 157 feet long by 27 wide, two stories and basement.

C. H. Seifers has sold his elevator at Sumter, Minn., to Jacob Leonard.

The American Brewing Company is building a brewery at St. Louis, Mo.

The new grain elevator at Martinville, Man., has commenced business.

The C. P. R. will build grain warehouses at Manitou and Morden, Man.

The Messrs. Lamberton are building a grain elevator at Stewartville, Minn.

The Goldsboro Oil Mill Company has been organized at Goldsboro, N. C.

S. K. Davis & Co., grain dealers at New Rockford, Neb., have sold out.

Copeland & Son, grain and hay dealers at Leadville, Colo., have sold out.

Mr. Stafford of Texarkana, Ark., contemplates building a broom factory.

The Wyoming Beer Company has been incorporated at Rock Springs, Wyo.

Heaton & Lalicker, grain dealers at Vesta, Neb., have dissolved partnership.

Mathers Bros. of Greenville, Pa., will build a 30,000-bushel grain elevator.

A grain elevator and mill is being built at Chicago for the Wolf Maize Mills.

A. B. Campbell, grain dealer at Silver Creek, Neb., has discontinued business.

Claxton & Smith, grain dealers at Osmond, Neb., have dissolved partnership.

Strong & Miller have completed their grain warehouse at Stewartville, Minn.

S. H. Linton will build an elevator at Minneapolis, Minn., to cost \$12,500.

The Joseph Walton Coal Company will build an elevator at Memphis, Tenn.

The Roanoke Navigation Company is building a grain elevator at Weldon, N. C.

The Albert Braun Brewing Association will build a brewery at Seattle, Wash.

Rood's elevator at Bloomington, Ill., was sold Jan. 2 to Peter Whitmer for \$5,000.

The People's Guano Company will build a cotton-seed oil mill at Fort Valley, Ga.

A cotton-seed oil mill will be built at Temple, Tex., to be completed in the spring.

A. E. Rea & Co. of Brandon, Man., are shipping large quantities of oats eastward.

The Phil. Schillinger Brewing Company will erect a brewery at Birmingham, Ala.

The East St. Louis Brewing Company will build a brewery at East St. Louis, Ill.

W. W. Robinson contemplates building a cotton seed oil mill at Alexander City, Ala.

The Easley Oil Mill Company will build a cotton-seed oil mill and gin at Easley, S. C.

Joseph Evans and others will probably build a cotton-seed oil mill at Dardanelle, Ark.

A new grain elevator will be built at Milwaukee, Wis., by the Pabst Brewing Company.

Wm. Lea & Sons' grain elevator at New Castle, Del., is receiving large quantities of corn.

Mr. Ross has commenced buying grain at Wawanesa, Man., for N. Bawlf of Winnipeg.

The Orangeburg Oil Mill Company will build a cotton-seed oil mill at Orangeburg, S. C.

Gladstone, Man., has now five grain warehouses, another having just been completed.

Horton & Johnson, grain dealers at Grand Rapids, Mich., have dissolved partnership.

Morden, Man., shipped during 1890 171,097 bushels of wheat and 5,291 bushels of flaxseed.

Thomas Cox and Joseph Evans will each build a cotton-seed oil mill at Dardanelle, Ark.

Kissimmee, Fla., is to have a rice mill with a capacity for cleaning 70 barrels of rice a day.

Stone, Dodd & Co. of Viola, Ark., have rebuilt their distillery which was recently burned.

The elevators at Bissell, Man., are full of grain, but there is a scarcity of cars for shipment.

The Fred Miller Brewing Company of Milwaukee is building a malt house at Neenah, Wis.

Over 300 tons of broom corn was produced in the vicinity of Greenwood, Neb., last year.

The Beverly Mill and Elevator Company has been incorporated at Beverly, Lincoln county, Kan. The directors are E. W. Doolittle, Wm. Brownlee, A. N.

Capiel, G. G. Lang, Ed. Likely, A. C. Foy, D. R. Keraban.

Sattler & Kortb, dealers in grain and live stock at Osmond, Neb., have dissolved partnership.

T. Gilbert and others have organized a company to build a broom factory at Columbus, Ga.

Packard Bros., grain dealers at Sherburn, Minn., have been succeeded by A. D. Packard & Co.

The Amelia River Company contemplates erecting a rice mill and shingle mill at Fernaudina, Ark.

The glucose works at Marshalltown, Ia., are running on half time on account of a dull market.

Matthews & Key, grain dealers at Ballinger, Tex., have been succeeded by Mattbews, Miller & Co.

A grain elevator, the first in British Columbia, will be built at Liverpool, near New Westminster.

Patterson & Bro. & Co., seed commission merchants at Cincinnati, O., have dissolved partnership.

S. Crandall & Co., grain dealers at Marshall, Minn., have been succeeded by Turner & Brenner.

R. A. Jones thinks of building a cotton-seed oil mill and fertilizer factory at Gaffney City, S. C.

The Belton Co-operative Manufacturing Company of Belton, S. C., will build a cotton-seed oil mill.

The Woodside Brewing Company has been incorporated at Woodside, N. Y., with \$50,000 capital stock.

W. H. Helston, grain and feed dealer at New Milford, Conn., has been succeeded by Helston & Leach.

The Farmers' Alliance contemplates building a cotton-seed oil mill and guano factory at Gadsden, Ala.

The Ogilvie Company has a 35,000-bushel receiving elevator at Moosomin, Man. Jas. Sharp has charge.

Quinn & Terry, the elevator men of Kewanee, Ill., will start a grist mill in connection with their elevator.

The Farmers' Alliance contemplates building a cotton-seed oil mill and fertilizer factory at Chester, S. C.

John L. Rodgers & Co., grain dealers at Baltimore, Md., have been succeeded by Thomas Leishear & Co.

A cotton-seed oil mill will be built at Covington, Ga., by T. C. Swan, John Dearing, W. C. Clark, and others.

J. H. F. Sexton & Co., grain and hay dealers at Philadelphia, Pa., have been succeeded by E. K. Sexton & Co.

The Edna Rice Mill Company has been organized at Merverton, La., with \$10,500 capital to build a rice mill.

A farmers' joint stock company is being organized at Indian Head, Assa., to buy the elevator and mill at that place.

A cotton seed oil mill and fertilizer factory will probably be built at Hawkinsville, Ga., by the Farmers' Alliance.

J. A. Patterson of Waynesboro, Va., has sold his grain elevator and flour mill to M. M. Robertson and others for \$30,000.

H. J. and Joseph Gude of Minneapolis have moved to Duluth, Minn., and converted the old "Q" elevator into a feed mill.

Daugherty & Simmons, grain dealers at Belmont, Wis., have dissolved partnership. Mr. Simmons will continue the business.

The Schlinger Grain Company has been incorporated at Belleville, Ill., with \$10,000 capital, to deal in grain, flour and millstuffs.

Charles E. Culpepper has been admitted in partnership with Geo. E. Bartol & Co., grain commission merchants of Philadelphia.

Charles E. Milmine has been admitted into partnership with Milmine, Bodman & Co., grain commission dealers of New York City.

Chester D. Wright of Chicago, formerly a grain dealer at Duluth, has entered into partnership with Henry Gill of the Duluth Roller Mill.

The Carolina Rice Milling Company of Wilmington will rebuild its rice mill at Washington, N. C., which was recently destroyed by fire.

T. F. Watson will build a grain elevator at Fairmount, W. Va. Edward Corbett, the milling engineer of Washington, D. C., has the contract.

The suit of Samuel Burkowitz against Schwartz & Lester of the Chicago Board of Trade, for \$900,000, has come up before the courts again.

Farmers at Carberry, Man., have formed a stock company, and propose to build a 100,000 bushel grain elevator to cost \$10,000. This reads well.

F. H. Peavey & Co., the grain and elevator men of Minneapolis, Minn., will open headquarters at Kansas City for the Southwestern business.

There are four grain buyers at Moose Jaw, Assa. The Carberry Milling Company and McMillan Bros. have agents purchasing grain at that place.

James Walker built an elevator at Murray, Neb., and filled it with grain expecting the Missouri Pacific Railroad to lay its tracks to that place. But now the road pro-

poses to stop at Union until next spring, thus leaving Mr. Walker without shipping facilities.

S. R. Fox & Co., grain commission dealers of New York City, have been succeeded by Lane & Fox.

The grain dealers at Ekhorn, Man., expect to handle over 100,000 bushels of wheat this season, which is a large increase over the previous year's crop.

The Kansas Central elevator at Leavenworth, Kan., is now doing a good business. A large quantity of corn is being received from Nebraska and Iowa.

In the case of Boyd vs. Hauser at St. Paul, Minn., the plaintiff was awarded \$19,000 damages by the jury. Judge Nelson refused defendant a new trial.

A 1,000,000-bushel grain elevator is being built at Fairport, O., for the Pittsburgh & Western Railway, by Barnett & Record, elevator builders of Minneapolis, Minn.

H. S. Gilbert & Co. of Ottawa, Ill., have placed a 15-horse power electric motor in their elevator on the canal. The current is obtained from the wire of the street car company.

The Roanoke Navigation & Water Power Company is building a grain elevator at Weldon, N. C. The machinery will be driven by water power derived from the Roanoke Falls.

The Clemens Oscamp Company has been incorporated at Omaha, Neb., with \$25,000 capital, to deal in grain, flour and feed. Clemens Oscamp and Milt. N. Sanford are the incorporators.

The damaged barley in the Bosch-Ryan Grain Company's elevator at Cedar Rapids, Ia., has been carted off to the malt houses. The fire broke out several times after it was supposed to be out.

M. C. Tubbs has completed his elevator at Kinsley, Kans. Kinsley has two elevators and flour mills and expects to do a large business if the next wheat crop turns out as well as it promises to.

Griswold, Ia., has four grain elevators with a storage capacity of 110,000 bushels. The Ogilvie Company, Lake of the Woods Company, Roblin & Atkinson and S. P. Clark & Co. buy grain there.

The officers of the Iowa, Minnesota & Dakota Elevator Company deny the reported failure of the company, stating that the rumor was started by local creditors who wanted to embarrass the company.

All rail rates on grain, flour and mill-stuffs from Winnipeg, Man., to Toronto, have been reduced 2½ cents per 100 pounds by the Canadian Pacific Road. The rate is now 44½ cents, instead of 47 cents, as formerly.

The elevator built at Virden, Man., by the Lake of the Woods Milling Company increases the storage capacity at that place to 100,000 bushels. The Ogilvie Company and McBean have each a 35,000-bushel elevator at that place.

Frank Russell, Fred Bradley and Wilson Diehl were arrested recently while filling sacks in Murray's Elevator at Clark, Ia. It is said that wheat has been taken from other elevators at different times, and it is also thought that other parties are implicated.

The grain elevators at Omaha, Neb., handled a large quantity of grain in 1890. The Union Elevator Company handled 5,000,000 bushels of corn and 1,000,000 bushels of oats. The Fowler Elevator Company handled 3,000,000 bushels of corn and 500,000 bushels of oats.

Rosenbaum Bros. of Chicago have sold their line of grain elevators, located along the Mason City & Fort Dodge Railway, to Barlow & Lawrence of Thornton. The elevators are five in number, and are located at Fort Dodge, Lehigh, Vineent, Meservy and Clarion, Ia.

The West Cove Grain Company has been organized to operate grain elevators at Greenville, Me., and deal in grain. The capital stock is \$20,000, and the officers are W. L. Morse of Morse & Co., Bangor, president, and A. H. Thaxter of A. H. Thaxter & Co., Bangor, treasurer.

The Great Western Manufacturing Company, Leavenworth, Kan., have recently received orders for their Peerless Friction Clutch from the Beatrice Starch Company, Beatrice, Neb., 6; the Crane Company, Minneapolis, Minn., 5; Taggart & Gradle, Walton, Kan., 1; the Interstate Brick Company, Lansing, Kan., 1.

Six of the Cheney Peerless Grain Shovels will be used in the new elevator now under construction for E. C. Buchanan & Co., Memphis, Tenn. The Crane Company of Minneapolis, Minn., have the contract for the elevator, and have placed the order for power shovels and driving machinery with the Great Western Manufacturing Company of Leavenworth, Kan.

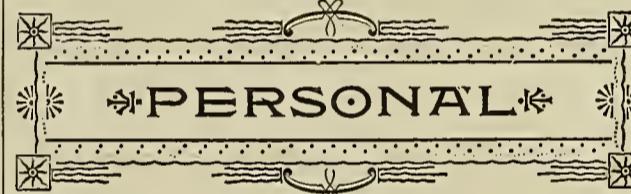
The Kansas City, Fort Scott & Memphis Railroad Company lately ordered twelve Cheney Peerless Power Grain Shovels from the Great Western Manufacturing Company of Leavenworth, Kan., for their West Memphis, Ark., elevator. This company ordered twenty-four of these machines from the Great Western Manufacturing Company during 1890.

A new trial has been granted in the case of N. E. Arnold & Bro. vs. G. W. Van Dusen & Co. at Redpath, S. D. The suit had been tried before a jury which rendered plaintiffs a verdict for \$25,000. The judge regarding this as excessive granted a new trial to be held before a referee. Van Dusen & Co. sold thirteen elevators to N. E. Arnold & Bro. for \$25,000, the money to be paid in

installments. As the buyers did not come to time with their payments Van Dusen & Co. took charge of the elevators. Then the Arnolds sued Van Dusen & Co.

The Menasha Wood Split Pulley Company of Menasha, Wis., has recently received orders for their hickory split pulleys from Huntress & Brown Iron Company, Duluth, Minn.; Gesley Plow Manufacturing Company, Beloit, Wis.; Timothy Greeing & Sons, Dundas, Ont.; Troy Laundry and Carpet Cleaning Company, St. Joseph, Mo., and Thomas T. Rhodes, Cold Brook, N. Y.

An interesting legal battle was fought at Lostant, Ill., Dec. 11. A modest country elevator was the cause of it. George L. Blanchard owned the elevator. He became financially embarrassed, and his creditors levied upon the building. At the constable's sale Senator O'Connor bought it, and in turn sold out to A. R. Knapp of Minooka. But now Noble Jones, another Minooka grain dealer, showed up with a trust deed given to him by Blanchard. Proceedings were then begun in the court of chancery to determine who was the owner, and Judge Stipp decreed that Jones, by virtue of his trust deed, was entitled to possession. Knapp took an appeal from this decision. Immediately afterward Mr. Hill of Joliet, who was Jones' attorney, filed an affidavit in the Appellate Court setting forth that a writ of procedendo should be granted to the receiver, Graves, that he might insure the elevator. Mr. Hill then secured two certified copies of the decree, and accompanied by Receiver Graves, took the night train to Lostant and made a midnight raid on the elevator. As no one was near, they boldly mounted the steps, forced an entrance, and prepared to hold the fort against all comers. When Knapp's agent, Mr. Newell, appeared, he was given a very cold reception, being told that Mr. Jones, and not Mr. Knapp, was doing business at that stand. When Mr. Hill discoursed upon a writ of procedendo and the certified decree, the agent was dumfounded and thrown into a cold sweat. He concluded that Mr. Knapp was done for, and prepared to leave. Mr. Hill then desired the agent to sign a lease renting the elevator of Receiver Graves. The agent telegraphed Knapp for instructions, stating that the enemy was in possession and that wagons loaded with grain were standing in the street. O'Connor, Knapp's lawyer, answered, "Throw them out, and if you can't do it alone, call in all the assistance you want." Newell, who is an athletic fellow, at once acted upon these instructions, threw out the custodian and resumed business at a lively rate. Mr. Jones will probably have to wait until the matter has gone through the court before he can secure possession.



James S. Wiley has been appointed chief grain inspector at Decatur, Ill.

James E. Boyd, identified with the grain and provision trades in Chicago and Omaha, has been elected Governor of Nebraska.

F. E. Holmes of the Sidle Fletcher Holmes Company of Minneapolis has retired from that company and will enter the grain business.

Edward Roelkey has resigned his position as chief grain inspector of the Baltimore corn and flour exchange, on account of poor health.

Thomas Hineline, formerly in charge of an elevator at Madison, Minn., is now in charge of the wheat department at the "Columbia Mill" in Minneapolis.

Augustin Gallagher, city editor of the *Kansas City Times*, has been appointed grain inspector at Kansas City, Mo., by the Missouri Railroad and Warehouse Commissioners.

Assistant Chief Inspector O'Shea has been appointed chief inspector at St. Louis, Mo., by the railroad and warehouse commissioners of Missouri. Frank Washington, who held the office of chief supervisor, was chosen to take the position vacated by O'Shea.

The sample tables in the Chicago Board of Trade building were sold at auction recently; \$115 was paid for the first choice. The total aggregated \$5,100 against \$7,000 last year. The members raised \$410 for their frolic at the end of the old year, of which sum only \$110 was used. The remainder, \$300, was distributed to various charities.

The Beatrice (Neb.) *Express* is responsible for this. It may be so, but it will bear scrutiny before being swallowed: Cattle feeders in York county are arranging to ship their cattle to Illinois and Iowa points to feed this winter. One stockman who has always fed in York county, Nebraska, says that the farmers there make the feeders pay 5 cents per bushel more for corn than the demand of the grain dealers and elevator men. Another states that he bought 5,000 bushels of corn in Chicago and laid it down in his feed yard at 4 cents less per bushel than a neighboring feeder paid for his corn at his home in York county.



The Buffalo Merchants' Exchange elected its trustees Jan. 14.

The Board of Trade of Winnipeg, Man., has decided to secure a charter from the legislature at its next session.

The Toledo Produce Exchange has passed resolutions favoring the old system of furnishing Chicago quotations.

The Toronto Board of Trade will hold a general meeting Jan. 22 for the nomination of officers to be elected on the 29th.

The new building of the Toronto Board of Trade is nearly completed. Some of the tenants have moved in. "Call" was held for the first time Dec. 20.

The Chicago Open Board of Trade now has no telegraph wire or operator. Nevertheless it still gets the figures correctly a few seconds later than on 'Change, sixteenths not being quoted.

As is usual at the end of the old year, a band of music took possession of the floor of the Chicago Board of Trade and assisted in driving dull care away. Many were the boys again.

Only three memberships of the Chicago Board of Trade were forfeited last year owing to non payment of dues. They were those of Geo. R. Houghton, Henry R. Green, Jr., and E. C. DeLoud.

At the annual election of officers for the St. Louis Merchants' Exchange, Mr. Marcus Bernheimer was elected president, and Messrs. Geo. P. Plant and S. R. Francis first and second vice-presidents respectively.

Resolutions passed Jan. 3 by the Duluth Board of Trade declare that the present method of getting Chicago quotations is unsatisfactory and detrimental to business, and favor the old system of public quotations with telegraph companies on the floor.

The hop dealers of New York City have formed a Hop Dealers' Exchange, and elected the following officers: President, Albert Lilienthal; vice-president, J. R. Scott; treasurer, H. A. Simmonds; secretary, H. F. Fox. The initiation fee has been fixed at \$25, and the annual dues will be \$40, payable quarterly.

The Board of Trade windows
All soaped will remain,
But the bucket shop people
Quotations will gain,
And fill Mr. Baker
With sorrow and pain.

—Chicago Journal.

The year 1890 was one of the most eventful and prosperous in the history of the Chicago Board of Trade. In its material affairs the Board of Trade is prospering. It has set apart a goodly sum for the reduction of its indebtedness, and has been able to reduce the membership dues for the coming year to \$65. Memberships have ranged from \$750 to \$1,400 during the past twelve months, and are now rated at about \$1,100.

Our Exchange closes to day a successful year. Our commerce in grain has largely increased. There is no weakness, no failures. The present methods make the grain business of the country the most safe and solvent of any of the business's pursuits. The grain trade shows less failures during the late money pinch than other lines of business, and we believe it ranks to-day as a safer pursuit than dry goods. Of course a man can fool away his money in any business, but trading in grain now involves far less risk than formerly.—Toledo Produce Exchange Report.

The annual election of the Chicago Board of Trade officers was held Jan. 5. The newly elected officers are: President, William T. Baker; vice-president, James T. Rawleigh; directors, William H. Bartlett, John S. Hannan, John M. Fiske, E. A. Beach and Malcolm C. Mitchell. The election was a victory for those in favor of the policy pursued last year in the war on the bucket-shop, the removal of the telegraph instruments. The committee of appeals is A. S. White, James M. Sherman, Charles M. Armstrong, W. H. Beebe and Josiah B. Reeme; and the committee of arbitration, William B. Bogart, James Crighton, Thomas C. Ledward, Silas S. Whitehouse and Frederick Dickinson.

The Toledo Produce Exchange has elected the following officers for 1891: President, J. Frank Zahn; vice-president, William H. Morehouse; second vice-president, Frank I. King; secretary, Denison B. Smith; treasurer, William T. Carrington. Directors: Charles L. Reynolds, Milt' n Churchill, Ezra L. Southworth, Julius J. Coon, Fred O. Paddock, Henry W. DeVore, William M. Bellman, Frank H. Tanner, James Blass, Frank N. Quale. Committee of Arbitration: C. A. King, F. C. Chapin, F. W. Annin, James Hodge, T. A. Taylor, Charles Stager, M. Shoemaker, Jr. Committee of Appeals: F. J. Reynolds, W. A. Rundell, G. W. Flower, H. T. Morey, L. S. Churehill, R. B. Mitchell, E. D. Draper, W. E. Cratz, V. Hamilton, A. H. Hathaway, C. W. Coe.

WATERWAYS

It is said that there will be no Canal Forwarders Association at Buffalo this year.

The American Steel Barge Company is building five of McDougall's whale back ships at Superior, Wis.

During the season of navigation 45,693 tons of wheat was shipped by steamer from the elevator at Fort William, Man.

The fleet of vessels in winter quarters at Milwaukee number 133, of which 50 are steamers. The total tonnage tied up is 73,236.

A German contemporary states that a Magdeburg firm will shortly make experiments on the Finow Canal with boats and timber rafts worked by electricity.

Among the canal boats frozen in on the Erie Canal were thirty-eight carrying grain. Two were laden with wheat, six with corn, three with oats, eighteen with barley, seven with flaxseed, and one with buckwheat.

The steamers *Harlem* and *Hudson* of the Western Transit Line, broke the record in the carrying trade between Chicago and Buffalo. They each made twenty-five round trips during the season of navigation of 1890, and carried over 200,000 tons of freight.

Mr. S. V. Parsons, who went to Ogdensburg to look after the propeller *John Rugee*, which suffered from fire at that port a short time ago, reports the adjustment of the loss at \$4,158.55 on a fire risk of \$80,000. About 8,500 bushels of her cargo of oats was damaged in putting out the fire.

Receipts of grain at New York for the canal season of seven months, by canal and rail, compare as follows: Wheat, by canal, 9,245,100 bushels; by rail, 3,496,000 bushels. Corn, by canal, 16,272,200 bushels; by rail, 4,767,100 bushels. Oats, by canal, 1,556,700 bushels; by rail, 19,617,200 bushels.

The number of vessels which arrived at the ports of Baltimore, Boston, New York, San Francisco, New Orleans, Philadelphia and Portland, during the year 1890, was 19,283. The arrivals at Chicago during the same year were 11,390. Clearances from the above named Atlantic and Pacific ports for the same time were 18,475 and 11,401 from Chicago.

It is reported that the Lehigh Valley Railroad will put a line of steam canal boats on between Buffalo and New York next season, make its own rates and ignore the present canal men. This, if done, will insure cheap rates and will not endanger the usefulness of the canal, but it will interfere greatly with the present fleet of boats, which are doing poorly enough now.

Milwaukee wants credit for the grain shipped from that port. The Milwaukee Chamber of Commerce will try to have the law respecting the lake coasting trade amended. As it is now, a vessel chartered at Chicago to carry grain from Milwaukee, takes out its clearance at Chicago, loads at Milwaukee and goes on down the lakes to Buffalo, leaving no report at Milwaukee, which thus gets no credit for the business transacted.

Some time ago the steamer *Western Reserve*, in discharging at Buffalo a cargo of wheat loaded at Duluth, found it to be 900 bushels short. The elevator men at both towns asserted that their measurements were correct, and so it was proved. The steamer came here and it was discovered that the wheat had mysteriously leaked through the inner sheeting of the vessel, and was found all right between it and the water bottom.

The Portage Lake Canal, originally a private enterprise, is to be sold to the government, and will with its connections be widened and deepened, furnishing a channel for the largest vessels and enabling them to avoid the detour around Keweenaw Point, the most dangerous piece of navigation on Lake Superior. The works purchased include the two canals, one five miles in length and connecting Lake Portage with Lake Superior on the east, the other two and one-eighth miles long and making the connection to the westward.

A board of army officers met at Albany, N. Y., according to an act of Congress, to examine the Hudson River below the state dam at Troy, and to report a project and estimate the cost of widening and deepening the river to make it navigable by sea-going vessels of twenty feet draft. The commission will also report an estimate of the expenses of deepening the river between New Baltimore and the state dam. The board will investigate the advantage of the improvements to the commerce of the Great Lakes and the Erie, Oswego and Champlain canals.

There is said to be every prospect that the New York state canal authorities will ask for a largely-increased appropriation next year. Extraordinary repairs will swell the amount into hundreds of thousands of dollars. State Engineer Bogart and Superintendent of Public Works Hannan have just completed their annual inspection of the state canals. The Erie Canal boatmen, the officials learned, had an unprofitable season, while those on the Lake Champlain Canal made a little money because of the large shipments of ice. Several of the aqueducts on the Erie Canal need attention. A casual inspection of

the Montezuma swamp and at Rochester proved that they would stand for but a few years at most, while those at Seoharie Creek, three in number, are likely to give out any time. Upon examination it was found that the trunks, which are of wood, were badly rotted. The masonry work is sound, but to reconstruct the trunks will cost over \$100,000. Outside of the defects mentioned the officers found the canals in excellent condition.

The Sault Ste. Mary's Falls Canal was opened April 17 and closed Dec. 3, being open to navigation 228 days against 234 days in 1889. The vessels which passed through during the season carried 16,217,370 bushels of wheat, 2,044,384 bushels of other grain and 3,239,104 barrels of flour, against 16,231,854 bushels of wheat, 2,133,245 bushels of other grain, and 2,228,707 barrels of flour during the season of 1889. The value of the merchandise shipped through the canal in 1890 was \$102,214,948, being more than for any preceding year, and an increase of more than 21 per cent over that of 1889.

The *Transcript* of Moncton, New Brunswick, says: The marine railway is still booming all along the line. At the Fort Lawrence dock the work of excavation still goes on. The masonry for the hydraulic lifts, as also the walls of the dock, are beginning to assume large proportions. A line of rails has already been laid from the dock to a point about a mile above Long Lake. Much freight has already passed over that portion of the road. The other line will be commenced early in the spring; in the meantime work will be pushed forward vigorously, and it is expected much will be accomplished during the winter.

The *London Engineer* says that the Panama Canal is actually a thing of the past and nature in her work will soon obliterate all traces of French energy and money expended on the isthmus. Reports say that the heavy rains have caused vast slides into the canal from the hilltops near Obispo, and the canal excavation at Circaracha is entirely filled up. Only one dredge of the American company now remains at Colon, the *Nathan Appleton*. The dredge Ferdinand Lesseps of the same company was sunk about sixty miles from Colon, while being towed to Greytown. Lieutenant N. B. Wyse, acting for the Panama Company, writes from Bogota that owing to the exacting terms sought to be imposed by the senate committee, "it appears that it will be impossible to reach an understanding."

Following in the natural line of progress, steam is rapidly superseding the horse and mule as the motive power for canal boats. Already about one-quarter of the vast amount of grain that comes from Buffalo via the Erie Canal is brought through the agency of steam, and the canal boat men claim that if the state will only lend a helping hand in the way of improving the waterways, steam will soon drive the other motive powers entirely out of the business. One of the finest steamboats—the *John B. Dallas*—is 96½ by 17½ feet, and was built last spring by Morgan Brothers of Lockport. She can herself carry 6,100 bushels' capacity each, making the total capacity of the fleet 39,300 bushels. With two boats in tow the *John B. Dallas* makes the trip between Buffalo and New York in a trifle over seven days, and with four boats in tow she makes it in about ten and one-half days.

The following exhibit shows the amount of flour and grain shipped from Buffalo by canal from the opening of navigation to Nov. 30 for the last three years:

Canal opened	May 1, 1890.	May 1, 1889.	May 10, 1888.
Flour, bbls.....	1,805	8,454	4,945
Wheat, bush.....	11,013,667	15,318,376	15,657,511
Corn, bush.....	21,381,069	20,697,366	17,646,796
Oats, bush.....	2,824,993	3,823,463	4,307,650
Barley, bush.....	2,654,746	482,499	66,217
Rye, bush.....	603,774	1,220,294	392,745
Total.....	38,477,349	41,741,998	38,070,919

SHORTAGES IN SHIPMENTS.

Considerable dissatisfaction exists among grain shippers regarding the question of shortages. Several complaints of this nature have been made to us recently by Manitoba shippers, who have been put to a good deal of annoyance and loss on account of claims of shortage. This is a matter which comes up so frequently that it seems to call for some way of overcoming the difficulty. A car of wheat supposed to contain a certain weight is shipped to a dealer or miller say in Ontario. On arrival at its destination a claim for shortage in weight is made. The shipper here has nothing official to show as to the weight of the car as shipped, and there is nothing to do but to accept the claim of shortage. These claims are made so frequently that the totals, though small in individual cases, amount to quite a serious loss to shippers. A way out of this difficulty would be to have an official weighmaster stationed at Winnipeg who would give a certificate of the weight of cars as they passed through. The shipper here would then have something authoritative to show, when presented with a claim of shortage. It is said that this system is in vogue at some points in the United States, and is found to work well.—*Winnipeg Commercial*.

Shortages occur just the same whether the grain has been weighed by an official weighmaster or not. His weighing it will not prevent it from being scattered along the line of the railroad by leaky cars, and lost by careless unloading. Neither will it prevent the reporting of shortages which do not occur, but of course the weights given out by an official weighmaster will be considered more reliable.

PRESS COMMENT.

WOULD SUIT FARMERS.

The government of Portugal must be a sweet scented affair. It is about what the Farmers' Alliances would transform ours into. An extract states what was well known, that millers must buy two bushels of home-grown wheat before they can import one bushel. The government controls the price of bread, and sometimes enters the market and buys grain. Comment on such meddling with private affairs is unnecessary.—*Toledo Market Report*.

WOULD NOT BE BENEFITED.

As a result of low prices the agitation has been revived in some sections of Manitoba that the farmers should combine to handle their own grain. It is difficult to see how they would be benefited in the present situation by this course. They would be powerless to cause an advance in prices, just the same as they are now. As to the question of farmers' elevators, the farmers have just as good a right to erect an elevator at a railway siding as they have to build a granary on their own farm. But we do not believe the farmer has anything to gain by becoming his own shipper, as he certainly cannot handle the grain to as good advantage as the regular dealer.—*Winnipeg Commercial*.

CONFUSING CROP REPORTS.

Winter wheat reports are confusing. In the same area the reports indicate a great pest and an absolute absence of the Hessian fly. How this can be it is not easy to understand. Reports from the same area indicate both a decrease and an increase in the area sown, another puzzle to the observer who believes one side till he hears the other. Up to date no reporter has ventured to figure out the exact crop of wheat for 1891. Last year at this date the crop for 1890 was figured out to a bushel, so that the feasters in the holiday season knew just what to anticipate. Of course the figures selected then did not come within 100,000,000 bushels of the crop; but that is a fact of no account.—*Milling World*.

WHEAT IN FARMERS' HANDS.

There was very free marketing recently by farmers that has now nearly ended. The rapidity with which wheat came to the country elevators in the late weeks of the old year was unexpected, and exceeded most other years. It is argued by the bears that the large movement is evidence of a full reserve yet on the farm. On the other hand, the movement has dropped to a merely nominal amount now to the interior elevators, and there is the same reason for the conclusion that the farm wheat is all moved as there was last week, when it poured out so freely, to claim that the supply is inexhaustible. There is a modest quantity in farmers' hands yet to be sold, but when it comes in the market there will unquestionably be a strong demand for it.—*Minneapolis Market Record*.

REGAINING COMMERCIAL PRESTIGE.

No twelve months since the great Board of Trade structure has stood at the head of La Salle street have brought as important changes in the business of the association as the year just now closed. It cannot be denied that for two or three years previous there was a gradual falling away in what might be termed the legitimate business of the association. The public was fast becoming divorced from the trade, while the purely gambling influences drew more closely around the great commercial center. The year has marked the lopping off of evils and a return to business under natural influences. The croaking element inside and outside the association say the bucket shops still run. A few of them do, but they are outlaws and have lost their influence entirely. Another year under the present dignified policy and the Board of Trade will have a double share of the confidence of the producer and the general public, and will have regained its commercial prestige.—*Chicago Journal*.

CORN IN EUROPE.

Charles A. Dana, the famous editor of the *New York Sun*, who has recently returned from an extensive journey through Southeastern Europe, said: "A fact which has impressed me in particular was the great extent of the cultivation of Indian corn in Hungary, Roumania, Bulgaria; in short, with the exception of Greece, throughout Southeastern Europe. I have never seen in the Western states of our country such immense fields of corn as in these countries. I should say, in fact, in a continuous journey of 600 or 700 miles we saw nothing else except as a mere incident. The corn makes the great mass of agricultural industry."

Prof. Sanborn says, hopefully, that "the field is the place to select grain for improved seed. There we see the whole plant growing and can study all its qualities and habits. A few hours' work each year would give a constantly progressive type of wheat which would soon become the sound basis for improved seed for the farm."

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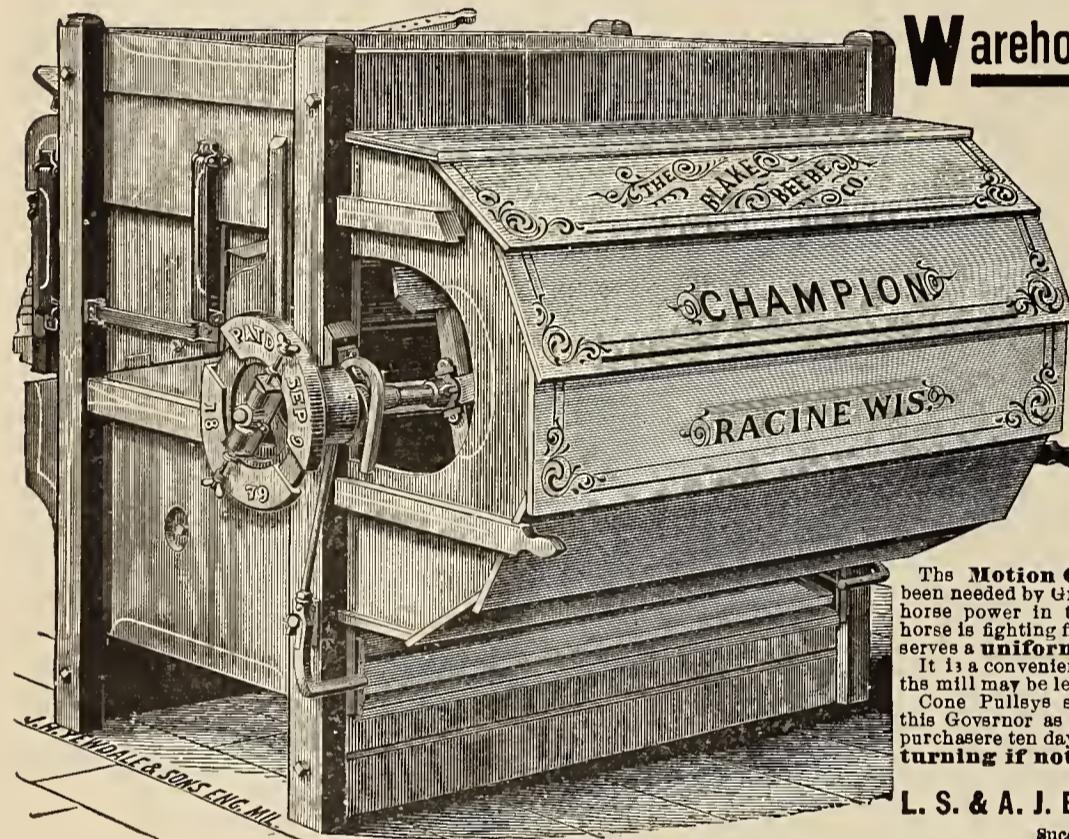
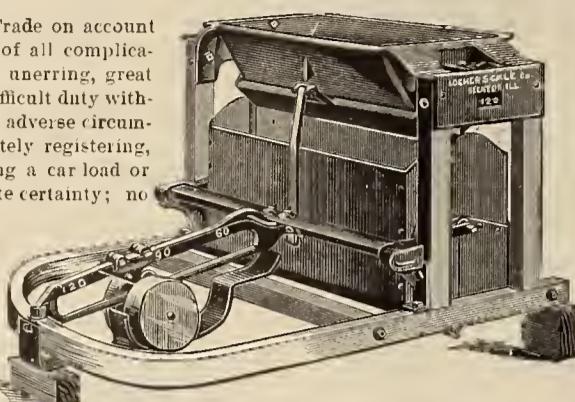
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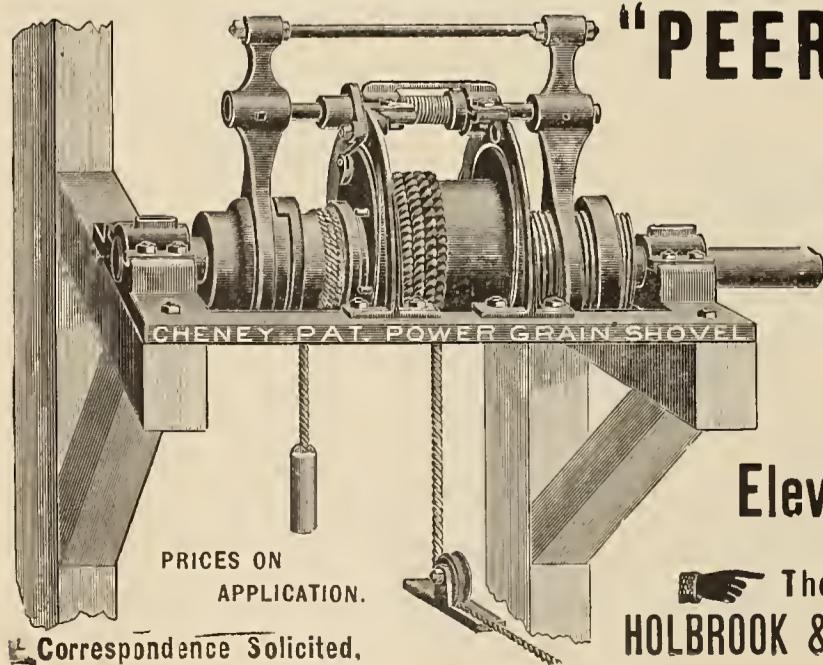
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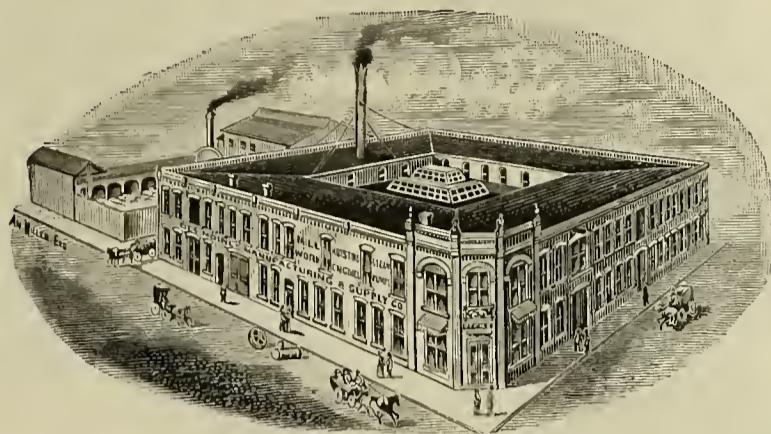
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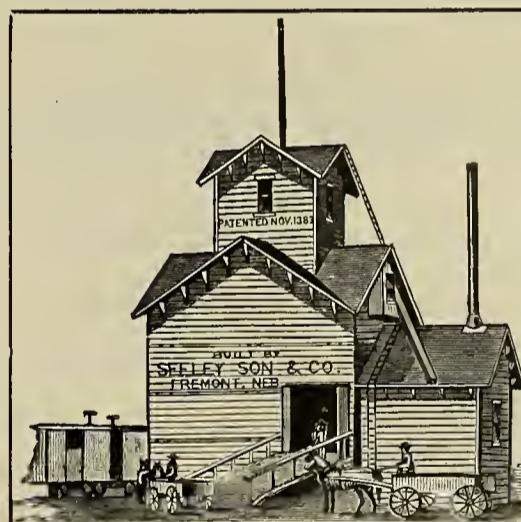
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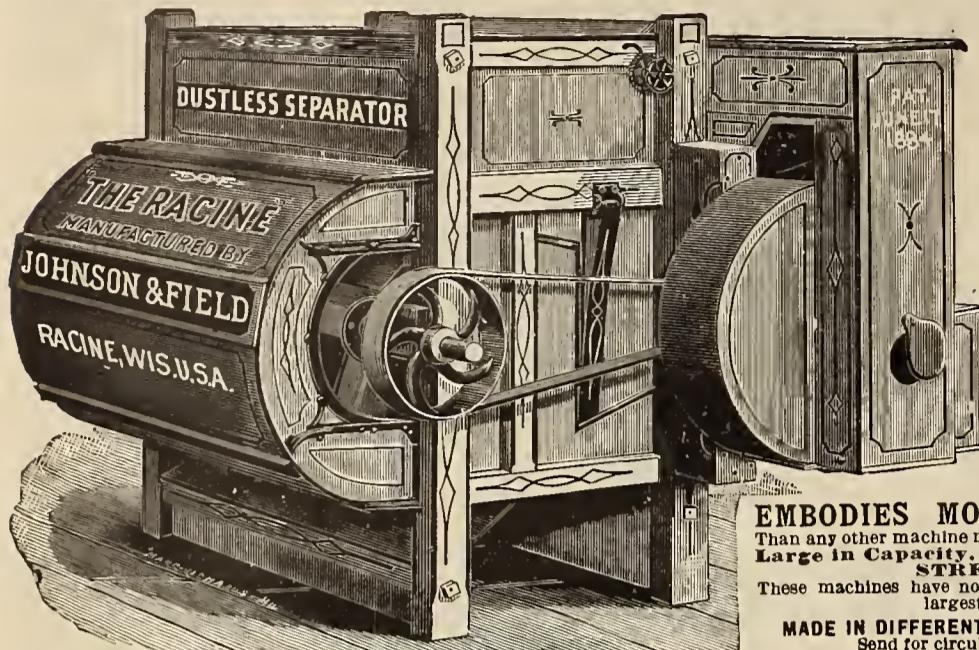
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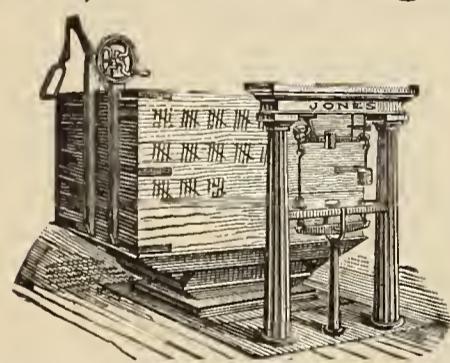
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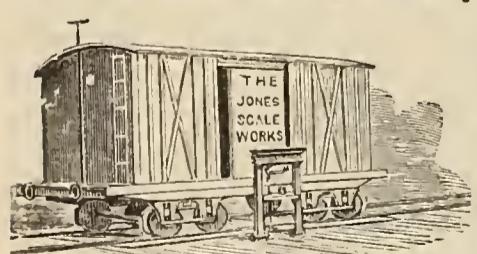
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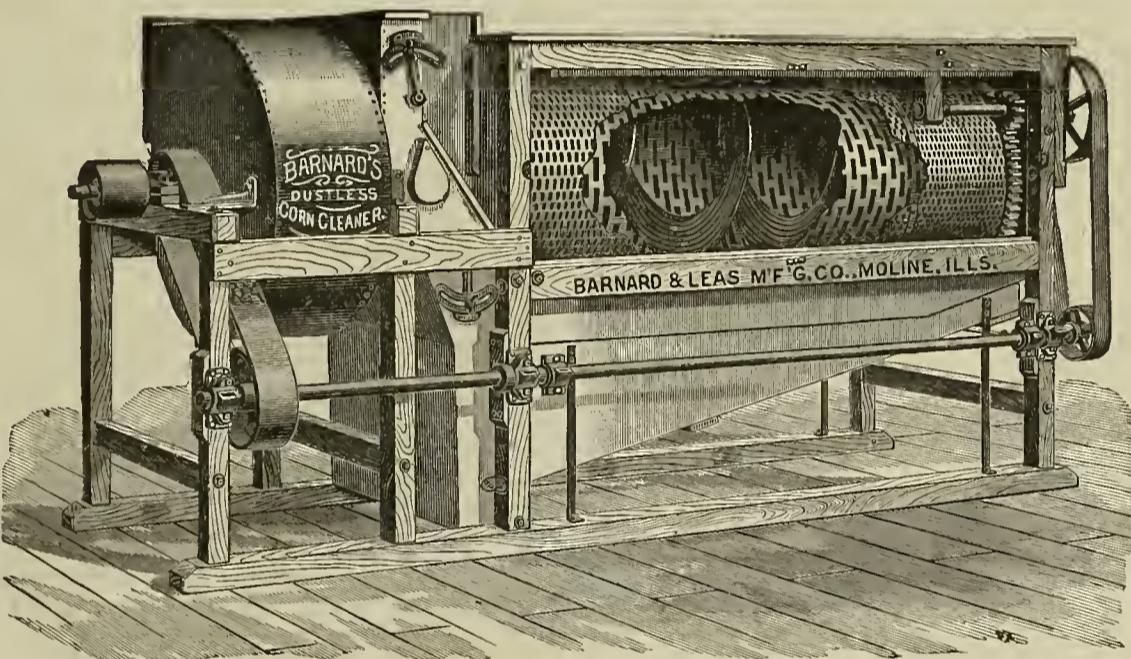
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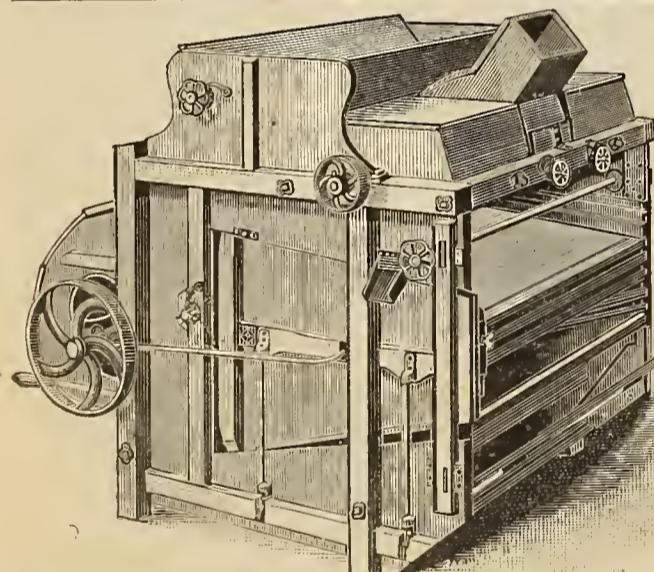
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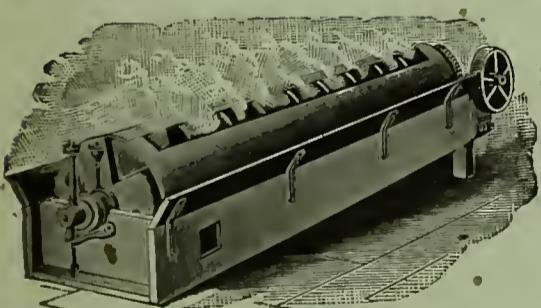
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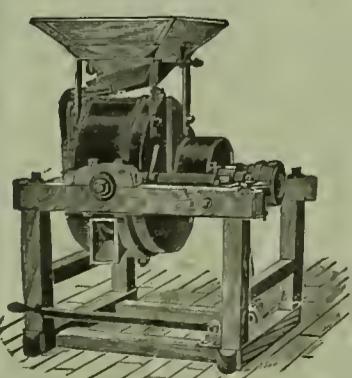
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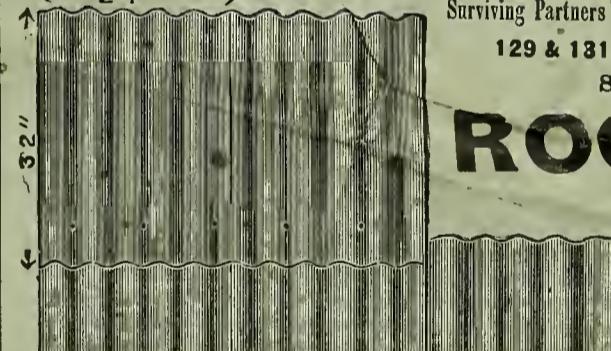
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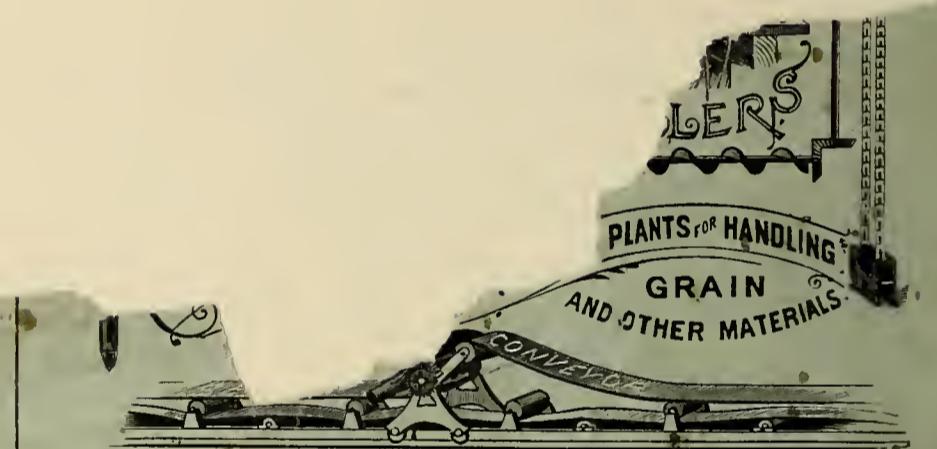
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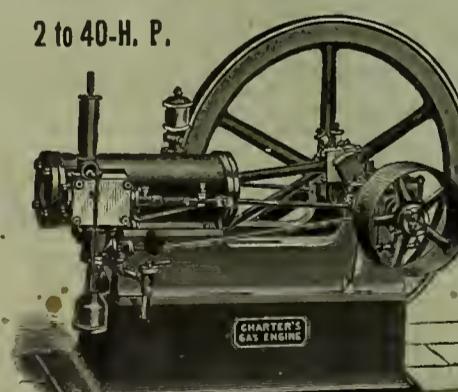


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